On the Fly

Israeli Airpower against the Al-Aqsa Intifada, 2000–2005

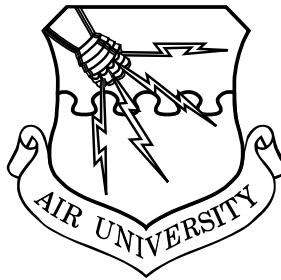Matthew M. Hurley
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Israeli Airpower against
the Al-Aqsa Intifada, 2000–2005

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Introduction

When asked to name one defining episode in the chronicles of the Israeli Air Force (IAF),[1] historians and professional airmen would likely recall the opening salvoes of the Six-Day War on 5 June 1967. By the end of that pivotal day, the outnumbered IAF had effectively destroyed the air forces of three hostile Arab states, enabling the Israel Defense Forces (IDF) to overwhelm their foes and triple Israel's territorial holdings within a week. The IAF called this impressive accomplishment Operation Focus—an appropriate moniker for such a determined application of aerial force against a numerically superior foe.[2]

Equally appropriate, the IDF refers to its participation in the antiterrorist campaign of 2000–2005 as Operation Ebb and Flow[3]—a term that not only evokes the seesaw level of violence characterizing the al-Aqsa Intifada[4] and the IDF response but also describes the IAF's changing fortunes since the conflict began in September 2000. In contrast to the nearly legendary accomplishments of its past, IAF operations during Ebb and Flow may be best remembered for accusations of disproportionate force, controversy over "collateral damage," and very public debates over targets and tactics. The 1967-vintage IAF knew its enemies and had trained, literally for years, to fight against those refreshingly familiar foes. Its twenty-first-century successor, however, proved unprepared to face a new kind of opponent in a new kind of war. Not until 2004—more than four years after Ebb and Flow began—had the IAF adapted itself sufficiently to overcome these obstacles in an operationally meaningful way. It did so, literally and figuratively, "on the fly," continually improvising its tactics, equipment, and doctrine to fit the new reality. Virtually every aspect of the IAF's counterinsurgency (COIN) effort correspondingly underwent radical revision, at times more than once—mission emphasis continually shifted across roles, new weapons designed specifically for urban operations and counterterrorism experienced accelerated development, and the service as a whole found itself faced with the daunting prospect of learning a new way of warfare while Israel faced its gravest threat in decades. The IAF's efforts were by no means uniformly successful; some, indeed, proved disastrous

in the context of a war dominated by perceptions and politics. Nonetheless, the IAF did implement enough of the right improvisations to make increasingly significant contributions to the IDF's overall COIN campaign. That it did so with even middling success is an achievement of note for airpower historians; that the US Air Force is currently facing similar challenges—in the same part of the world—suggests that the hard-won lessons drawn from the IAF's painful experience may be relevant to the USAF's ongoing COIN and counterterrorist efforts.

Right Weapons, Wrong War

The IAF has traditionally placed its operational and acquisition priority on fulfilling the service's core missions: achieving air superiority, conducting long-range strikes, and executing surface support operations in the context of large-scale warfare against a conventional foe.[5] Each of these missions, and the IAF's resultant force structure, foresaw the service erecting an aerial barrier around Israel and its surface forces while taking the fight to enemy territory. As intermittent diplomatic progress between Israel and "frontline" Arab states had resulted in a more distant sphere of anticipated operations, the IAF correspondingly forecast its wartime focus on increasingly long-range operations. Accordingly, it committed the preponderance of its funding to antiballistic missile (ABM) defenses, long-range strike aircraft, and strategic intelligence collection platforms, including reconnaissance satellites.[6] However, as the al-Aqsa Intifada developed in late 2000, the IAF found its next enemy rising from *within* the elaborate barrier of defenses it had begun to assemble against more distant foes.[7] While the IAF had expected to wage its next war over Iranian nuclear facilities or Iraqi missile sites, it found its new enemy throwing Israeli soldiers from windows in Ramallah, bombing buses in Tel Aviv, and launching homemade rockets from Gaza. Rather than savaging Syrian armor columns or cratering Egyptian airfields, the IAF found itself trying to hunt individual militants hiding among civilians in the "rabbit warren" of Palestinian refugee camps.[8] As one combat helicopter pilot observed, "This is a different kind of war. Instead of attacking armored personnel carriers

and missile batteries, as we were taught, we are forced to oper-ate inside towns and cities, among our neighbors, people who work in our fields."[9] Another lamented, "We were built for much more massive and serious things."[10]

Finding the Right Mission

That latter pilot had spoken in November 2000, following six weeks of aerial operations in support of Ebb and Flow. The IAF was first called into direct action against its new and unantici-pated enemy on 2 October 2000, just four days after the inti-fada began.[11] More attacks would follow, and by January 2005 regional media and international defense sources had reported over 550 IAF attack sorties against Palestinian targets.[12] Though a relatively small tally by US standards—roughly equivalent to a single day's attack sorties during the major combat phase of Operation Iraqi Freedom, for example[13]—the IAF's evolving mis-sion emphasis has revealed several parallel evolutions in Isra-el's air campaign against the Palestinians.

During the initial phases of Ebb and Flow, from 2000 to 2002, the IAF focused its operations against the most "tradi-tional" of targets, as well as the simplest to strike: the security infrastructure of Yasser Arafat's Palestinian Authority (PA) and affiliated organizations.[14] Strikes against PA–associated facili-ties accounted for fully half of all reported IAF strikes in 2000 and 75 percent of those conducted the following year.[15] These attacks often involved relatively large-scale assaults against multiple facilities following particularly lethal terrorist inci-dents—missions intended to "signal" Israel's demand that the PA assume a more active role in preventing additional terror-ism. For example, in February 2002 then-IAF chief of staff Brig Gen Amos Yadlin listed "sending messages" as one of the ser-vice's three primary roles in combating Palestinian terror.[16] Other Israeli officials made similar assertions: in the wake of a two-day air offensive against 15 PA–affiliated targets, including Arafat's helicopters at Gaza International Airport, an Israeli spokesman asserted that the attack "was intended to send a very clear signal that either Arafat . . . will fight terrorism or we will have to do it."[17] Likewise, following an F-16 strike against six

PA–associated targets in May 2001, prime ministerial spokesman Raanan Gissin described the strikes as "a serious message to stop suicide attacks. This more serious attack is a message to the other side that the deteriorating situation, caused by the suicide bombing, will not be accepted."[18]

These first two years of Israeli air operations, however, did not stop Palestinian terrorist attacks, and by mid-2002 the Israeli government appeared to accept that its strategy would not achieve the intended results. Its focus subsequently shifted from retaliation to the disruption of terrorist planning and execution.[19] The IDF and civilian security services correspondingly intensified their efforts to prevent rather than simply punish terrorist attacks, while operations designed to pressure the PA to do the job itself declined. A senior official in the Israeli internal security service, Shin Bet, summed up the new operational concept: "Anyone defined as a terrorist or as one who handles them must be neutralized. If you have good intelligence, do not wait—strike immediately. Not as a reaction but with a continuous, steady initiative, all the time. . . . Every time you find something, you have to go after it."[20] IAF operations in support of this preventive effort included an intensifying effort to strike weapons-related facilities in the West Bank and Gaza Strip.[21] Reported attacks against weapons production and storage sites, for example, doubled between 2003 and 2004, while preemptive strikes against suspected rocket launchers, mortar teams, and Palestinians emplacing bombs increased tenfold during the same period. However, the most significant—and controversial—IAF contribution to the overall preventive effort involved its increasing participation in the IDF's "targeted killing" campaign.[22]

Although Israel resumed targeting leading Palestinian militants and suspected terrorists within six weeks of the intifada's initiation,[23] Prime Minister Ariel Sharon reportedly gave the IDF and Shin Bet a "green light" to embark on a more comprehensive assassination campaign in October 2001.[24] The effort intensified further in 2003 when the IDF received orders to "completely wipe out" the most lethal and rejectionist of the Palestinian groups, HAMAS (*Harakat al-Muqawamat al-Islamiyyah*, meaning "Islamic Resistance Movement"), using "whatever means necessary." Simultaneously, the IDF progressively expanded its definition of so-called ticking bombs—those Palestinians targeted

on the presumption that their deaths would interrupt planned attacks. For example, the 2003 order against HAMAS proclaimed that "everyone from the lowest member to Sheikh Ahmed Yasin," the group's founder and spiritual figurehead, was considered a legitimate target.[25] The oft-updated definition of "ticking bombs" eventually included even Palestinians engaged in suspected militant training, such as the 15 alleged HAMAS members killed during an air attack against a field in the Gaza Strip.[26]

The IAF's role in the assassination campaign correspondingly intensified during this period. In fact, its operations against individual Palestinian militants and activists accounted for more air strikes than any other mission in 2003 and ranked a close second in 2004.[27] "The marriage of combat helicopters with special ground forces has become our 'dream team' for targeted killing operations," an unidentified Israeli general remarked in 2003.[28] By that time, "targeted killing [had] been transformed from a rare, almost one-time occurrence into a lethal, quick, and painful routine," according to another Israeli commentator.[29]

Yet those missions, intended to protect Israeli citizens against a worsening maelstrom of terrorist attacks, still comprised a secondary effort in the IAF's overall activity. In terms of "operational" sorties, whether employing ordnance or not, ground force support consistently ranked as the most frequent IAF mission, particularly among helicopter and remotely piloted aircraft (RPA) units.[30] Throughout Ebb and Flow, attack sorties to support Israeli troops in contact accounted for 20 percent of all IAF missions during which ordnance was employed, with thousands of others flown to assist ground forces in other ways.[31] Then-IAF commander Maj Gen Dani Halutz emphasized the ground support role, commenting that "we have to give [the IDF's Ground Forces Command] the maximum we can provide as an air force in order to enable them to accomplish their mission."[32] As one helicopter pilot explained more pointedly: "When you are sent to assist a force in trouble, you react with very great force. We are no longer speaking of 'surgical treatment,' there are no intermediate steps. If [Palestinians] are firing from a window, the entire floor will fall, and the whole house will burn."[33]

Finding the Right Weapons—Aircraft

As the IAF's missions evolved throughout Ebb and Flow, the range of platforms and weapons employed to accomplish those missions correspondingly expanded. Initially, the IAF relied exclusively on the use of attack helicopters to provide aerial support to ground forces, express Israeli displeasure with the PA, or assassinate particularly troublesome militants.[34] As the IAF's target set began to expand, however, it found that helicopter missile and cannon fire could not effectively engage certain facilities, resulting in the first use of fighter aircraft to attack targets in the Occupied Territories since 1967. As explained by the IDF Operations Branch chief following the first F-16 strikes during Ebb and Flow, "I know the F-16 was not designed to attack targets in Palestinian cities, [but] the targets were big enough, strong enough or solid enough that attack helicopters were not effective enough to penetrate or to hit these specific targets."[35] The targets in question, struck on 18 May 2001 in response to a HAMAS suicide bombing, included a PA security compound and prison in Nablus as well as five other PA–associated facilities.[36] From that first fixed-wing strike until 18 December 2004—the last reported F-16 combat sortie of Ebb and Flow—fighters drew nearly 20 percent of the IAF's attack missions in the West Bank and Gaza Strip, including some of its most lethal and controversial missions. Then-IAF commander Halutz attempted to dismiss such controversy, remarking that "there is nothing mystical about a specific type of plane. If we send a Cessna with a bomb, would that make the action more gentle or pleasant?"[37] However, the political and media uproar following the deaths of 14 Palestinian civilians in a July 2002 F-16 strike highlighted the complications of unloading a 2,000-pound bomb in an urban area—a weapon that could not have been delivered by any IDF asset other than a fixed-wing fighter.[38]

Although IAF fighters and helicopters received the greatest attention, the IDF also made extensive use of remotely piloted aircraft throughout the course of Ebb and Flow.[39] For the bulk of the conflict, this task fell exclusively to the IAF, following a 2000 IDF directive to transfer all RPAs to IAF control. The IAF's sole RPA operator, the 200 Squadron at Palmachim Air Base,

increased its operations tempo accordingly. "Events in the territories have made [200 Squadron] the busiest squadron in the Air Force," the Israeli *Air Force Journal* reported in October 2001. "[It] has been operating almost non-stop. . . . Urgent operational orders arrive at the squadron at an unprecedented frequency, and the number of flights is increasing at significant rates."[40] Between 2001 and 2002, for instance, the number of operational RPA sorties flown by the unit jumped from 395 to 557.[41] Even at this elevated pace of operations, however, the IAF's inventory of RPAs and operators proved insufficient, leading to calls for a new class of RPAs and an expanded pool of personnel trained to operate them.[42]

The IAF relied on indigenously produced Scout, Searcher, and Hermes 450 RPAs to perform the surveillance, damage assessment, target tracking, and laser-designation missions allocated to 200 Squadron.[43] However, the unit was most often tasked to provide situational awareness to ground forces during incursions into Palestinian strongholds. Applying lessons learned during earlier Israeli operations in Lebanon, IAF RPAs monitored operations areas, provided ground force commanders with near-real-time information on potential threats, and cued attack helicopters for support.[44] As Ebb and Flow evolved, 200 Squadron also found itself tasked with more specialized roles, such as IED (improvised explosive devices) detection and militant tracking during targeted killing operations.[45] Regarding the latter, Halutz acknowledged, "There is no such operation that was carried out without [RPA] assistance. Not only the aerial assassinations, but also the ground ones, were conducted with their escort."[46]

Numerous eyewitness and analyst accounts suggest the RPAs' role in targeted killings was not limited to "escort" or "assistance." By mid-2001 the IAF reportedly began investigating the feasibility of developing unmanned combat air systems (UCAS), and by the following spring was said to be deep into the development of a UCAS based on the Israeli-designed Heron 450 high-altitude/long-endurance (HALE) RPA.[47] By the latter half of 2004, the IAF had apparently translated this developmental technology into an operational capability; that July, Israel reportedly conducted the first of at least 15 suspected UCAS strike operations reported during Ebb and Flow.[48] Although official Israeli sources have not yet acknowledged such operations,

Palestinian eyewitnesses have repeatedly offered testimony indicating Israeli UCAS employment. "I saw a small plane and then a flash of light, then I heard a huge explosion and a car went up in flames," said one Jenin resident, recalling an alleged UCAS strike on 13 September 2004.[49] The target of that attack, al-Aqsa Martyrs Brigade commander Zakariah Zbeidi, also claimed to have witnessed "an Israeli UAV launching missiles" against him.[50] The mounting reports led the editor of *Jane's Air-Launched Weapons* to declare, "The Israelis almost certainly have armed UAV programs on the go right now."[51]

The impetus for fielding such systems is apparent, given the operational scenario that confronted the IAF. On the one hand, a UCAS offers its targets less warning of an imminent attack, increasing the odds of success in targeted killing operations or other missions dependent on surprise. Further, an effective UCAS capability represents the ultimate shortening of the "sensor-to-shooter loop"; when the sensor itself has the capability to engage the targets it identifies, the delays inherent in the data dissemination process are dramatically curtailed. Additionally, RPAs generally boast greater endurance than their manned counterparts, permitting more persistent surveillance of potential targets and greater opportunity to attack in a fleeting, unpredictable strike window.[52] While the IDF has not publicly acknowledged the use of UCASs, it has certainly praised their potential. For example, Halutz, by then the IDF's deputy chief of staff, observed in an August 2004 interview, "As current and future warfare requires endurance combined with precision strike capabilities, the solution is UAVs and autonomous munitions, which will produce the targets and destroy them precisely."[53]

Unintended Consequences

The IAF's operational evolution throughout Ebb and Flow was mirrored by the progression of its troubles, including declining confidence in the wisdom of its tasking and the consequent impact on morale. The service first encountered criticism from within its own ranks in the early "signaling" days of IAF operations. Just one month into the intifada, several Israeli of-

ficers privately expressed their belief that IAF operations had been ineffective and hamstrung by restrictive rules of engagement—including a requirement to fire warning shots before attacking PA facilities—to the extent that "such attacks cause no real damage, and therefore have no deterring effect."[54] Even senior IAF commanders expressed their disapproval of so-called "real-estate raids," which destroyed individual buildings but posed no risk to PA personnel, thus negating their deterrent value.[55] Such perceptions had apparently filtered to the squadron level, leading one veteran AH-64 pilot to remark, "I, in fact, suspect that improper considerations, which are not necessarily operational, are creeping into our missions."[56]

While combating Palestinian militants on an increasingly full-time basis, the IAF was also expected to continue preparing for major conflict with hostile states such as Syria or Iran, and to do both in an era of increasing fiscal constraints.[57] The resulting budgetary pressures and inventory shortfalls proved potentially crippling to both missions. As early as July 2002, IAF weapons expenditure in the Occupied Territories had forced the IDF to relay an "urgent appeal to the U.S. Department of Defense" to supplement its dwindling inventory of air-to-ground munitions.[58] The following November, shortly after receiving the first of 100 new F-16I long-range strike fighters acquired in a $4.5-billion deal, the IAF quite literally ran out of gas, having exhausted its fuel budget for the year. Consequently, Halutz ordered the cancellation of all unit proficiency flights, reserving remaining fuel stocks for operational missions and basic flight training.[59] By the beginning of 2004, IAF commanders expressed concern over the impact of this decision. "We haven't flown for over a month and a half, and I'm scared about putting a pilot in the air," one helicopter squadron commander observed.[60] Fiscal constraints also forced the IAF, for the first time, to outsource an operational capability—specifically, RPA flight operations—to a civilian contractor, in a move one IDF official referred to as "visual intelligence by the hour."[61]

Meanwhile, public controversy over unintended civilian deaths—in IAF parlance, the "uninvolved"[62]—led to increasing morale difficulties within IAF units. The issue intensified in July 2002 after an F-16 strike against an apartment complex housing HAMAS' Gaza commander, Saleh Shehadeh. Following

revelations that 14 Palestinian civilians were also killed in the raid, including nine children, some IAF pilots reportedly began to feel "uncomfortable" with targeted killing operations.[63] Halutz attempted to defuse the controversy by explaining matter-of-factly: "Weapons are not pure. They are not intended to be pure. . . . By the same token, I am sorry to have to announce that there are no clean wars."[64] The issue persisted, however, and climaxed in September 2003 with the public refusal of 27 reserve IAF pilots, including nine on temporary active duty, to participate in operations over the Occupied Territories.[65] Among the signatories was Iftach Spector, Israel's second-leading fighter ace and one of the 1981 Osirak raiders.[66] Halutz, who called the public letter "a totally improper phenomenon,"[67] dismissed Spector from his post at the IAF's flight training academy and grounded the other pilots on active duty who participated in the so-called "pilots' mutiny."[68] The incident received worldwide media attention and exacerbated the moral debate within the IAF, particularly among the helicopter crewmen most often tasked to perform assassination operations. As a veteran helicopter pilot recounted after publication of the "refusenik" letter, "We are not convinced of the missions' justness, of their proportion, [or] of the frequency."[69]

The impact of mounting civilian casualties was felt beyond the ethical realm. As Knesset Foreign Affairs and Defense Committee chairman Haim Ramon observed after the Shehadeh strike: "This is not only a moral question. It is a substantive question in the struggle against terrorism. Without international support in general and U.S. backing in particular, we don't have a free hand to act against terrorists."[70] Even more damaging was the impact of civilian deaths on domestic popular support for Ebb and Flow. "Israel's democracy is particularly sensitive to the humanitarian aspects of the conflict," Halutz acknowledged in February 2003, "There are limits on the force we can use. . . . [I]n these types of conflicts the weaker side has a kind of strength."[71] His attention to the issue was warranted by dwindling public support for targeted killings: a poll conducted the following June revealed 58 percent of Israelis wanted the IDF to halt its assassination campaign, at least temporarily, representing a 33 percent decline in the public's approval of targeted killing operations in less than two years.[72]

Finding the Right Weapons—Tactics, Procedures, and Ordnance

To ameliorate the deleterious effects of collateral damage, the IAF continually modified its tactics and operating procedures to account for the congested urban environment. "Our fighting norms have changed," an AH-1S squadron deputy commander noted. "We are carrying out missions with the understanding that what is important is the day after. One errant missile has an influence on the entire arena."[73] Following a three-month hiatus in air operations during the winter of 2000–2001, the IAF acknowledged placing stricter limits on operations "as a result of the bad media publicity surrounding the use of helicopters." As Halutz revealed in April 2001, "The change is expressed both in the use of helicopters in the later hours of the day and in their use for shorter periods of time."[74] The Israelis also integrated RPAs more tightly into attack helicopter operations in hopes of further reducing the risk to innocent bystanders.[75]

The development of procedures intended to limit unintentional deaths occurred simultaneously with the evolution of urban warfare tactics, which an Israeli AH-1S pilot described as something "we never really trained for."[76] By 2002 the IAF had accepted the notion of a "saturated battlefield" in which the requirement to accurately employ ordnance outweighed a platform's opportunity to maneuver, given the low risk of surface-to-air fire compared to the negative impact of excessive collateral damage. The saturated battlefield concept led to a further modification of engagement procedures and more extensive use of precision-guided munitions (PGM).[77] Those munitions also evolved throughout the course of Ebb and Flow, including a modified variant of the indigenous Gil/Spike family of air-launched antiarmor missiles to replace the more powerful US–built Hellfire missile.[78] Several of the features built into the Spike-ER ("extended range"), which can equip both AH-64 helicopters and armed RPAs, appear to have been driven by the requirement to reduce collateral damage. These attributes included a smaller warhead and a fiber-optic link that allowed the operator to adjust the aim point, change targets, or even

destroy the missile after launch—a capability deemed "critical when the terrorist target is moving among civilians."[79] Remarks by Israeli defense minister Shaul Mofaz suggested these weapons had entered operational use against HAMAS targets by September 2003 and, in "several cases," were diverted after launch to avoid collateral damage.[80]

For fixed-wing aircraft, the IAF began procurement of the joint direct attack munition (JDAM) in October 2000, shortly after the al-Aqsa Intifada began, and in January 2003 declared the capability operational with the "Northern Knights" F-16 squadron.[81] The following October, this same squadron conducted a retaliatory strike against an Islamic Jihad training facility at Ein Saheb, Syria—the first IAF attack on Syrian soil since 1973—leading to speculation that the first Israeli JDAMs had been dropped in anger. "We chose very accurate munitions," the squadron commander commented. "We . . . flew with the knowledge that we're going out with the best aircraft and most suitable armament for the mission," further suggesting that the IAF had employed what its fighter pilots considered an atypical and exceptionally precise weapon.[82]

IAF leaders have also discussed the development of nonlethal weapons. "We need to start talking about 'no kill' ammunition," Brigadier General "Ilan," commander of the main IAF helicopter base at Palmachim, declared in 2001. "This is a different kind of war where you do not always want to injure to the point of death, especially in combat within civilian areas."[83] The following year, the IAF submitted a request to the Ministry of Defense to procure nonlethal weapons for urban operations, specifically to equip its attack helicopter units. Among the nonlethal options requested were air-delivered tear gas canisters and stun grenades, which would "allow us to conduct operations and flush out terrorists in an urban area without killing people or destroying property," according to a senior IAF officer.[84]

While the IAF grappled with the complexity and requirements of urban operations, the IDF's Ground Forces Command (GFC) sought more efficient and effective ways to leverage airpower in the same operational environment. Among its more significant conclusions was the need to acquire an airborne reconnaissance capability organic to the ground forces and tailored to their requirements. In January 2001, as the fighting intensified

and shortly after the IAF assumed control of all Israeli RPAs, the GFC first outlined its requirement for a tactical unmanned air platform which could be "easily operated by at most a brigade-sized force."[85] In 2003 the GFC opted for an indigenously developed system called the Skylark and by the following September began limited operations in the West Bank and Gaza Strip. The Skylark, which boasts a 10-km range and endurance of 60 minutes, weighs only 6 kg and can be shoulder-launched, rendering it truly man portable.[86] The intelligence "take" was downlinked directly to the ground unit, providing real-time awareness of close-in threats or target tracking during arrest or liquidation operations. In 2005 the GFC announced plans to acquire 70 Skylark systems, enough to equip each infantry battalion.[87] One officer assigned to the project proclaimed it "a real revolution. The airspace belongs to the infantry fighter, too, and now he can get, on demand, an online image sent to his laptop computer by a UAV which flies wherever the company commander wants it to go."[88]

Right Weapons, Wrong Way

The continual shifts in mission emphasis and platform employment, the domestic and international sensitivity to IAF operations, and the internal debates regarding targets and tactics demonstrated the challenges confronting the IAF as it attempted to apply airpower in the new context. Part of the difficulty stemmed from the realization that the IAF—which had expected to receive over 50 percent of the Israeli defense budget throughout this decade—had been relegated to a secondary role in Ebb and Flow.[89] Accustomed to functioning as the sole or decisive element in past Israeli operations, the IAF found itself scrambling for the right mix of roles, weapons, and platforms to reassert its relevance in what was, by its very nature, a ground-centric campaign. Although the IAF's leaders have recognized that "this is a complex, multidimensional conflict, and the IAF is only part of it,"[90] uncertainty regarding the nature of the enemy and the most effective way to fight him resulted in the adoption of missions that had a limited, or even counterproductive, impact on the campaign as a whole.

One of the earliest examples of IAF ineffectiveness involved the initial focus of its offensive operations: attacks against the PA's security infrastructure which, according to Ariel Sharon, were intended to exact "a price from those who were supposed to maintain security . . . and didn't."[91] Following one of the largest IAF operations of Ebb and Flow, a two-day aerial offensive against PA facilities in retaliation for a HAMAS suicide bombing on 3 December 2001,[92] an IDF spokesman explained that "the purpose was to impose sharp military pressure, more than we allowed ourselves to apply up to now, at [Arafat] and at the PA's political leadership, with the message: Folks, we are sick and tired, take responsibility for foiling terrorism."[93] However, these attacks against the PA's security and political infrastructure— over 200 of them by March 2002[94]—severely degraded the PA's ability to do just what the Israelis demanded. The IAF's operations "took a serious toll on the capabilities of the PA security forces,"[95] leaving its personnel to "roam the streets, stay at home or work from tents."[96] The Israeli government attempted to justify the intensifying attacks against the PA by declaring the organization "an entity which supports terrorism" due to its "incapability or irresponsibility" in stopping it.[97] Perhaps the real reason, however, lay in the fact that the PA's facilities were static structures whose locations were known to the IAF. As the same IDF spokesman admitted after the December 2001 attacks, "The main reason that direct HAMAS and Islamic Jihad targets were not attacked is because their military organization is secret or semi-secret. Therefore, they are not the type of targets that can be attacked in these kind of attacks."[98] Several IDF officers had earlier voiced their suspicions that another purpose lurked behind the aerial effort against PA facilities, namely, "the government's need to placate domestic public opinion rather than any military goal."[99]

Regarding the publicly stated purpose of such missions, to send "messages," the results proved equally ambiguous. However, one episode in December 2001 might have proven illustrative. "We are not afraid," a Palestinian policeman remarked that month as he sat at a café, shortly after an Israeli F-16 strike destroyed his station. "This is normal, this is easy," he continued, indicating that the IAF's "message" had not been received by at least this member of the PA.[100] That the pace of

terrorist attacks and the resultant tally of Israeli deaths continued to climb—finally peaking in "Black March" 2002, when 136 Israelis lost their lives—suggested that the message had not been received by the Palestinian militant groups either.[101]

Increasing attacks against the Palestinian weapons infrastructure produced similarly disappointing results. IAF strikes against weapons depots, production sites, and suspected entrances to smuggling tunnels rose steadily from 2000 to 2004, ultimately accounting for the third-largest share of IAF attack sorties.[102] During that same period—and despite the intensifying IAF effort—Palestinian mortar and rocket attacks continued to increase each year. Mortar shelling, for example, more than doubled between 2001 and 2004, peaking at 1,139 incidents, while rocket attacks nearly doubled to 232 between 2003 and 2004.[103] Though significantly less lethal than suicide bombings, Palestinian mortars, rockets, and roadside bombs accounted for one-third of Israeli fatalities in 2004.[104]

Right Weapons, Right Way

Despite the setbacks, embarrassments, and outright failures the IAF suffered during Ebb and Flow, the successes it achieved—albeit belatedly—testified to impressive improvements in mission areas that will likely remain valid in any future conflict. One of the most profound IAF achievements resulted from its years-long quest to shorten the sensor-to-shooter loop. Although the IAF relied heavily on human intelligence (HUMINT) for the initial identification and location of targets, particularly individuals,[105] RPAs proved themselves critical during operational execution. "[Finding] that small amount of time when the guy qualifies as a target, that's what RPAs are all about," 200 Squadron's deputy commander remarked in May 2002.[106] However, that "small amount of time" often expired before weapons could be brought to bear against the target. As Ya'akov Amidror, the former head of the IDF's Intelligence Branch, remarked in 2005, "Since the shelf life of every report is very brief, you have to get the report very fast to someone who can do something with it—arrest, kill, set an ambush, whatever."[107] The situation was complicated by the IDF's initial methods of disseminating

RPA–acquired intelligence: the RPA downloaded its video to a ground station, which then forwarded the data to the IAF's command center for further forwarding via voice transmission to IAF fighters or attack helicopters.[108] To correct this deficiency, the IAF began to equip its combat helicopters with an indigenously developed data link to deliver real-time RPA video directly to the helicopter crews, reducing the time required between target acquisition and destruction in confined urban areas.[109] A similar effort to relay real-time RPA imagery to ground units, spurred by difficulties encountered during the fierce West Bank fighting in the spring of 2002, reached fruition in mid-2004.[110] Shortly thereafter, Israeli UCAS operations had reportedly begun over the Occupied Territories, representing the ultimate shortening of the sensor-to-shooter loop.[111]

The initial results of the Israeli effort to shorten the loop promised dramatic improvements in IAF mission effectiveness, particularly when engaging Palestinians "caught in the act" of preparing or conducting attacks. From 2000 to 2003, for example, the IAF successfully struck a mere seven Palestinian snipers, roadside bomb teams, or rocket and mortar squads, either during or immediately after conducting operations. In 2004, thanks to Israeli sensor-to-shooter innovations, that number jumped to 27 (see appendices A and B). During one such mission in August 2004, the IAF for the first time successfully identified and destroyed a Qassam rocket launcher prior to launch, leading the new IAF commander, Maj Gen Elyezer Shkedy, to proclaim "the IAF is 'paving the way' in integrating intelligence with offensive actions."[112] Streamlining the sensor-to-shooter loop has also enabled the IAF to shorten its planning and execution cycle for targeted killing operations, a process that once took "long weeks, sometimes months" but by late 2003 required only "several hours" from target selection to engagement.[113]

Perhaps the most compelling testimony to the success of Israel's efforts to integrate operations and intelligence, however, is the Palestinian response. Recognizing their worsening prospects for successfully evading Israeli surveillance and targeting, HAMAS members in particular began taking active measures to foil aerial observation. Said HAMAS leader Nizar Rayan in November 2004, HAMAS operatives "must walk under a cover of cloth or any protection to avoid being seen by the

Israeli UAVs."[114] In fact, entire streets in the Jabaliyah refugee camp were reportedly covered with canopies to prevent RPA surveillance. "HAMAS squads today calculate their moves not only to avoid falling into an IDF ambush," one Israeli observer commented, "but also to avoid being spotted from the air."[115]

Improvements in intelligence and dissemination have contributed to another IAF success story: the tighter integration of air assets into ground operations. While Israeli officers on both sides of the air-ground fence have advocated "combined combat" operations since the 1973 war, the term remained "merely a slogan" until the latter stages of Ebb and Flow. Prior to then, in fact, the IDF's Ground Forces Command had jokingly referred to the IAF as a "foreign but friendly power," reflecting an inherent distrust and stubborn autonomy resulting from past disappointments on the battlefield.[116] These concerns were reinforced during the first test of the IAF's evolving urban warfare doctrine during Operation Defensive Shield, the March–April 2002 offensive against Palestinian militant strongholds in the West Bank. The air force's contributions appeared piecemeal and "old school," according to one observer, partially due to the IAF's unfamiliarity with operations against mobile targets, often individual Palestinians, in concealed and congested areas. Brig Gen Shlomo Mashiach, commander of the IAF's Helicopter Division, acknowledged that urban operations in support of ground forces "involve a change in doctrine and training, as attack helicopters weren't built for urban warfare."[117] While helicopters and RPAs maintained constant presence in support of the ground forces, the Israeli infantry still took the lead and bore the brunt of any Palestinian resistance.[118]

That model had changed by 2004, particularly by October when the IDF initiated Operation Days of Penitence to clear suspected rocket launch positions in the Gaza Strip. This time, the IAF took the lead—literally—by sending attack helicopters ahead of the ground forces to prosecute sources of resistance identified by orbiting RPAs, rather than reactively employing them in support of troops in contact. In effect, the IAF erected an aerial "bubble" that moved over and ahead of the ground forces, identifying and engaging hazards before the ground forces encountered them. The end effect, according to the IDF, was what it called a "thin medium"—a ground operation that elicited a

militant Palestinian response, which was then destroyed from the air before it could threaten the Israeli ground forces.[119]

The difficulties involved in this level of integration proved immense but not insurmountable. The IAF and the GFC had to learn to combine their planning and intelligence processes while working out the complexities of truly joint execution. In preparation, senior IAF commanders began regular liaison visits to ground force headquarters, while newly assigned ground force commanders were put through a "thorough" training program at IAF headquarters. In practice, by October 2004 the Gaza Brigade commander had a direct communication feed to both the IAF command center and the squadron commander in charge of the assets supporting him.[120] Ultimately, the two services both had to make "real adjustments" to a split-command arrangement which gave the ground forces commander tactical control of air elements supporting him while the IAF command center wielded veto authority over those decisions. The results, however, spelled a pair of firsts for the IDF's Ebb and Flow experience: helicopter gunships inflicted half of the losses incurred among Palestinian militants during Days of Penitence, while Israeli ground forces did not sustain a single fatality.[121]

The Wild Card

Despite its increasing effectiveness in ground support operations, the IAF continued to draw considerable heat for its most controversial mission—the so-called targeted killings. Like Palestinian suicide bombings, Israeli assassination operations had been a gruesome, albeit infrequent, aspect of the Arab-Israeli dynamic since the early 1990s.[122] That changed in November 2000, when Israel began a systematic campaign to hunt down and neutralize individual Palestinian militants. "When we say that we will punish the murders and we will prevent terror attacks, we really mean it," Deputy Defense Minister Ephraim Sheh announced the following month. "The most effective and just way to deal with terror is the elimination or incarceration of the people who lead these organizations."[123]

Since then, Israeli authorities have consistently claimed the assassination component of Ebb and Flow served a preventive,

not punitive, purpose. In September 2001, for example, Halutz noted that "Both the Bible and the Old Testament say: First slay him who would slay you. This rule was formulated against the terrorists of ancient history, and it remains valid to this day."[124] The IAF ultimately became the "service of choice" for such missions, and it conducted the majority of successful assassination operations through March 2004.[125] By that September, IAF commander Shkedy even described targeted killings as "our main mission."[126] Not only had the IAF assumed a progressively greater role in the targeted killing effort, by its own account the service had grown better at it. In January 2005, Shkedy claimed that the IAF had achieved an 80 percent success rate in aerial assassinations during 2004, compared with 50 percent the previous year. Furthermore, these operations reportedly resulted in only one civilian casualty for every 12 militants eliminated, which Shkedy described as an "effective surgical level."[127] IAF precision reportedly improved still further in 2005, with only a single civilian fatality for every 28 targeted killing operations conducted by the IAF during that year.[128]

Official Israeli sources—and some Palestinians—claim the liquidation campaign has severely constrained the terrorists' ability to conduct attacks.[129] One Israeli analyst, for example, claimed that the primary reason behind the decline of HAMAS' capability to conduct suicide bombings within Israel proper owed to the ongoing arrest and assassination campaign. "Their rotating leadership is expending all its energy hiding. They are afraid of Israel hitting them which makes any sort of sophisticated planning difficult," said Dr. Shimon Bar, a senior research fellow at the Israeli Institute for Policy and Strategy.[130] A senior HAMAS official, Ishmail Haniyeh, indirectly agreed by acknowledging, "HAMAS might have a crisis on its hands after losing its leaders," referring to the successive assassinations of Sheikh Yasin and his successor, Dr. Abdul Aziz Al-Rantisi.[131] Additionally, one of the leaders of the underground al-Aqsa Martyrs Brigade (AMB) indicated that both his organization and HAMAS had been badly hurt by Israel's liquidation of key personnel, particularly their most experienced bomb makers.[132]

If the Israeli government's measure of success was "prevention," however, the effectiveness of the overall liquidation effort—and the IAF's part in it—could not be accurately gauged,

as Ebb and Flow began to more or less permanently ebb in early 2005. The oft-cited decline in suicide bombings and Israeli fatalities since 2002 could be attributed to any combination of additional factors, including improved border and "seam zone" security, more aggressive ground operations in the Occupied Territories, and general war-weariness among the Palestinian public. What could be easily assessed were the negative impacts of the aerial assassination campaign, given the collateral damage inflicted during the course of these operations. According to one report published in 2003, more than two-thirds of all unintended Palestinian fatalities inflicted during Ebb and Flow resulted from the IAF's targeted killing efforts.[133] In particular, "the bomb in Gaza that killed 14 innocent people left a very profound impact on Israelis," according to one Israeli political scientist.[134] Such self-examination has certainly contributed to the weakening public support for the IAF's targeted killing campaign and the internal friction that resulted in the "pilots' mutiny."

Even so, IDF officials continued to regard targeted killings "a valuable counter-terrorist tactic that cannot easily be replaced."[135] Since it often appeared impossible to bring the terrorists to justice, some Israeli officials contended that "justice must be brought to them. For Israel this means killing them—not as punishment or revenge, but to prevent future terrorism."[136] Moral arguments aside, the IAF certainly did make considerable progress in perfecting its ability to prosecute this option against identified militants and terrorist leaders. This ability, in turn, derived from improved intelligence collection, an abbreviated sensor-to-shooter loop, and innovative weapons that permitted greater operator control until impact. As incremental as those innovations might appear, their aggregate effect on the course of Israel's counterterrorist campaign helped determine the conditions for its eventual—though relative and imperfect—success.

Looking for Lessons

At the end of the day, everyone wearing a uniform, anywhere, understands that "what worked last time" is merely history. To

truly understand what will work *this* time, in *this* conflict, events typically must first go wrong in epic fashion. The lessons of one conflict do not always—in fact, do not *ever*—translate wholesale into the conduct of another. However, even if history does not repeat itself, it sometimes rhymes, and the IAF's hard-won experience may offer some lessons of worth to the American airpower community.

First, airpower will not always enjoy first billing despite past successes—however spectacular—or institutional expectations of primacy in future conflicts. Most observers of COIN recognize that the military effort represents only a small part of an overall campaign, and an insufficient one by itself; airpower, in turn, comprises a relatively thin slice of that military effort. I prefer to discuss this reality in terms of what I call the "martini metaphor." The liquid refreshment at the core of the drink (and

Military Force

Good governance, basic services, law and order, relative prosperity, etc.

CONTEXT

Air-delivered Firepower
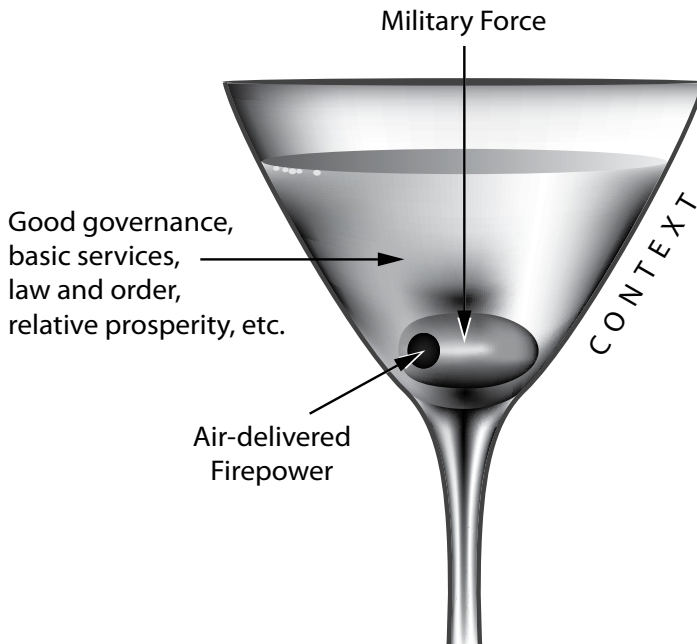
Airpower in COIN—the "martini metaphor"

the key reason most customers purchase one) is composed primarily of nonmilitary tasks, end states, and intermediate objectives, such as good governance, relative prosperity, and the like—all aimed at addressing valid grievances within the relevant population. The olive swimming in a typical martini represents the relative contribution of military force in its most familiar role of force application (as opposed to supporting civil authorities, for example). As for air-delivered firepower, one may equate that to the pimento in the olive. The glass itself bounds the context of COIN; contextual factors may include cultural, physical, economic, environmental, demographic, legal, and political realties and/or limitations, for example. The point to remember, however, is that no two martinis are ever exactly alike. Glasses vary in shape, size, and capacity. Gin, vodka, and variable amounts of vermouth or worse may take up most of the volume. Olives, and pimento, are optional and often displaced by a pickled onion. It all depends on the customer's preference, the bartender's skill, and whatever is available on the counter behind the bar. However, although no two are exactly alike, some truths have evolved in the long history of both martini-mixing and COIN.

For example, when supporting a campaign whose success will likely be decided by popular sentiment and facts on the ground, most counterinsurgent forces have recognized that ground forces achieve the most productive effects of any armed service. Airpower's most significant roles in COIN have thus historically derived from its support to those ground forces, for when the grunts lose, everybody loses. Additionally, airpower's most predominant and essential contributions to COIN have typically not been measured in the amount of ordnance delivered or the number of insurgents killed, but in the freedom of action provided to ground forces and civilian elements involved in the COIN effort. Thus airlift, psychological operations, ISR, and medical evacuation—rather than airpower's more kinetic manifestations—have been repeatedly recognized as the most significant air force contributions to successful COIN operations from Malaya to El Salvador. Conversely, overreliance on air-delivered firepower has plagued COIN operations throughout the postwar era, from the French in North Africa to current American efforts in Iraq and Afghanistan.[137]

Though the IAF initially disdained its "secondary" and relatively unglamorous support roles early in the intifada, by 2004 its attitude and capabilities had matured to the point where it could play a critical part in ground-centric operations, however contributory that part remained. The IDF Ground Forces Command may have called the shots, but the IAF eventually learned how to deliver them—literally and figuratively—and to do so with decisive effect. First, however, the IAF had to recognize that even in an emphatically "ground theater," airpower's supporting role did not necessarily translate into "irrelevance" or "ineffectiveness." The IAF's institutional challenge lay in figuring out where and how airpower worked best, often against a steep and painful learning curve, and then getting it done.

To get it done, however, airpower practitioners must first know what to do it to. In counterterrorist and COIN operations, that "what" is often more accurately a "who." As former Israeli intelligence chief Amidror correctly observed, "The objective in the war on terrorism is people—the main weapon of terrorist organizations."[138] Considerable moral debate will continue to complicate operations explicitly intended to target specific individuals, particularly given the risks of collateral damage when such individuals are to be found in heavily populated areas. As one Israeli commentator noted bitterly, "Once the IDF adopted the stupid method of shooting missiles into densely populated centers, the writing was on the wall that children would be killed. It's not that they were killed by accident. It was inevitable from the start."[139] Sadly, unintended civilian deaths will likely remain an inevitable fact of warfare for the foreseeable future, particularly when enemy personnel deliberately put civilians at risk by operating in their midst. Nonetheless, the IAF experience has demonstrated that the combination of responsive and flexible attack assets, precision weapons tailored to the urban battlespace, and real-time intelligence dissemination architectures affords airpower practitioners the capability to strike the right people—and a reasonable chance of striking *only* the right people.

That last point is significant and warrants additional emphasis. As forms of asymmetric warfare, terrorist and guerrilla operations are often undertaken in hopes of provoking a disproportionate response from government forces. But excessive

force in its own right, as well as the collateral damage it often causes, can result in very real, practical, and negative effects on future operations. To apply the minimum required force against precisely the right targets, COIN practitioners need intelligence—not just intelligence on the right subjects, but the *right kind* of intelligence on those subjects. For example, RPAs may be useful in tracking and fixing tactical targets, or identifying snipers on the next rooftop, or spotting an ambush around the corner in a crowded refugee camp. Reconnaissance satellites are likewise useful in gathering information about what *was* where, when said satellite last passed over a given area. What neither platform can provide is an actionable prediction of what *will be* where at a given time in the future. For airpower—or *any* power—to be effective in the COIN fight, a fight against people, its operators need people to provide the initial tip-off. Unfortunately, the United States' HUMINT resources, though dramatically improved since 2001, still lag far behind those of an insurgent holed up in the apartment building he has called home for years. Ours may never be as good as his, but it does not have to be. We do not need to know the layout of that neighborhood as well as he does—we only have to know which door to kick in, or which window to put a missile into, and whether or not civilians might be placed in harm's way in the process. Unfortunately, no technical solution is likely to provide us with that information. If anything ever does, it will typically come to us on two legs.

In the end, however, the emphasis on weapons, platforms, strategies, and doctrines—along with many other potential assets in the COIN toolbox—must take a backseat to a more fundamental concern: namely, that it is not as important to scramble for "answers" to immediate military problems as it is to ask the right questions. This does not mean that urgent tactical and operational needs ought not to be met, particularly when soldiers' and civilians' lives are at stake. It does mean that to win a protracted struggle, the kind of fight that most appeals to insurgents, the architects of any COIN effort should invest the time and skull sweat to look at the whats, the whys, and the hows, even if the who and the where are well known and the extent of the when is unknowable.

The first questions relate to an often overlooked reality: namely, that all insurgency is theater, regardless of the methods and tactics the insurgents employ. They seek to exert a psychological effect on the population, the government, COIN forces, *and* the "global audience" (the international media, international organizations, potential or actual allies and sponsors of both sides, and so on). The savvy COIN architect must consequently ask, "Who is the audience?" This includes collateral audiences who do not initially have a stake in the contest but may acquire an interest as a result of subsequent events. One should next ask, "What is the message I wish to convey to that audience?" Both questions must be satisfactorily answered before one can even consider the method of delivery because, to some audiences, the delivery itself supersedes the intended message. Indeed, in some contexts the delivery *is* the message, whether intended as such or not. The Israelis may indeed have intended their initial air strikes to "signal" the Palestine Liberation Organization (PLO) to rein in HAMAS and similar-minded groups. The message received in the Palestinian camps, however, was that the Israelis have no qualms about bombing and strafing helpless refugees, and for no apparent military purpose.

When developing the message and deciding on the method of delivery, it is crucially important to ask, "What does my enemy want?" This is a question the Israelis manifestly failed to consider throughout their campaign in the Occupied Territories, particularly where airpower was concerned. Granted, at a broad strategic level, Israel understood that its enemies wanted to dismantle the Jewish state and replace it with an Arab or Islamic polity (depending on the group in question)—something Tel Aviv could never be expected to countenance. That, however, was the extent of Israel's apparent understanding. If the course of the subsequent military campaign is any indication, Israel and its armed forces failed to consider the operational and tactical outcomes those groups sought to advance their goal. Only belatedly did they realize that groups like HAMAS and the Palestinian Islamic Jihad *wanted* "martyrs"—civilian as well as militant—which the IAF did much to provide. They *wanted* a weakened PLO and Palestinian Authority, which again the IAF eagerly handed them. They *wanted* visible evidence of Israeli military activity in crowded, predominantly

civilian urban areas, and few things are more visible than a bombed-out city block. They also wanted to provoke a disproportionate response, and what could be more disproportionate than an F-16 dropping a 2,000-lb bomb on an apartment building? The IDF—and the IAF in particular—still grapples with these and similar considerations, if the 2006 war against Hezbollah and the recent campaign in Gaza are any indication. The Israeli military, and its air force, continue to give their enemies exactly what they want whenever bullets fly and bombs fall. Given that those forces have demonstrated their skill, bravery, and intelligence in countless past operations, the only conclusion can be that they are asking the wrong—or at least outdated and irrelevant—questions.

This may represent the most important lesson of Ebb and Flow, one which militaries accustomed to victory have learned to their detriment throughout history: it is dangerous at least, and fatal at worst, to organize, train, and equip one's forces to fight the wrong war. For the bulk of Israel's history, its enemies have ostensibly sought to drive its people into the sea through the employment of numerically superior conventional forces. Consequently, Israel traditionally won its wars by destroying enemy armored columns, strafing and bombing enemy infantry, knocking enemy airfields out of action, and shooting down enemy planes before that enemy could do the same. Fifty years of martial experience had taught the IAF that the F-15I, the F-16I, and the Arrow ABM were the tools required to wage twenty-first-century war. In its first conflict of that century, however, the IAF found itself relying on 1970s-vintage helicopters and home-grown RPAs to mount something approaching an effective response to an enemy employing positively medieval methods.

The degree of that enemy's motivation can be characterized in the same historical light, for Saladin's self-proclaimed successors today fight with the same vigor and sense of righteousness as their predecessors who battled Byzantines, Crusaders, Mongols, and more modern would-be conquerors. The Israelis face a daunting task if their continued intent is to kill or deter anyone who acts—or may someday act—on that impulse. It would prove almost as difficult to take away enough of the tools of the trade to make a real difference. The Israelis may destroy as many rocket launchers or IED labs as they can find or seize

as many weapons caches as they might be fortunate enough to uncover. Perhaps they might even find ways to effectively staunch the flow of weapons into insurgent coffers. As yet, however, no counterinsurgent effort in history has succeeded in locating, destroying, or interdicting enough insurgents or insurgent "stuff" to cripple an insurgency itself. Insurgency is a form of warfare waged by and for minds, and those of Israel's enemies have proven to be distressingly crafty, resourceful, and exceptionally resilient in their angst. In that kind of fight, any military organization conditioned to thinking of success in terms of enemies killed and assets destroyed automatically begins from a position of profound disadvantage. Stubborn persistence in such "conventional" thinking, in which both objectives and results are measured by the most elementary and irrelevant of metrics, only compounds the initial handicap.

For air forces in particular, such thinking is regrettably close to second nature. Blowing things up, or shooting them down, is what air forces *do*, and some do it exceptionally well. However expert their execution of such activities, the sad fact remains that they alone will not serve the ultimate objectives of any COIN campaign, except perhaps one of utter annihilation. Once again, insurgency and its opposite are more about perceptions than PGMs; more about understanding than overmatch; in other words, more about minds than might. Consequently, an air force that seeks evidence of "success" in transitory overhead images or snapshot gun-camera footage, rather than in the indirect and maddeningly gradual developments that herald true progress, will inevitably face a learning curve not only steep, but vertical. Regrettably, no amount of thrust can be sufficient to overcome the crippling weight of such intellectual and institutional inertia.

Notes

1. In transliterated Hebrew, "Heyl ha'Avir."
2. Lon Nordeen, *Fighters over Israel* (New York: Orion Books, 1990), 71.
3. Sometimes translated from the Hebrew as "Changing Tides," but official English-language IDF publications use the term "Ebb and Flow." See, for example, "'Ebb and Flow'—A Summary of 2004," 2005, http://www1.idf.il/sip_storage/dover/files/6/37876.pdf.

4. Translated from the Arabic as a "shaking off" or "awakening." "Intifada," *The American Heritage Dictionary of the English Language: Fourth Edition*, 2000, http://www.bartleby.com/61/15/I0201575.html. Within Israeli circles, the second intifada is sometimes referred to as the "Oslo War," an accusatory allusion to the 1994 Oslo Accords that granted the Palestinian Authority a modicum of autonomy in matters of governance and security.

5. "The IAF's Missions," 2003, http://www.iaf.org.il/iaf/doa_iis.dll/Serve/item/English/1.3.2.1.html.

6. David A. Fulghum and John D. Morrocco, "Israeli Air Force to Grow in Size, Power and Range," *Aviation Week and Space Technology*, 10 April 2000, 63–64.

7. This "barrier" included the Arrow ABM system, declared operational in 2000; the F-15I Ra'am ("Thunder") strike fighter, declared operational in 1999; and the F-16I Sufa ("Storm") strike fighter, ordered in 1999 and delivered beginning in 2003. Ibid.; "F-15I Ra'am (Thunder)," 2004, http://www.globalsecurity.org/military/world/israel/f-15i.htm; and "F-16I Sufa (Storm)," 2004, http://www.globalsecurity.org/military/world/israel/f-16i.htm.

8. David A. Fulghum and Robert Wall, "Israel Refocuses on Urban Warfare," *Aviation Week and Space Technology,* 13 May 2002, 24–25.

9. Of note, the IAF controls all helicopters, not the IDF ground forces. Tzadoq Yehezqeli and Anat Tal-Shir, "I Have No Problem with Their Agonizing, but the Soul-Searching Ends When They Take to the Air," *Tel Aviv Yedi'ot Aharonot*, 26 September 2003, in Foreign Broadcast Information Service (FBIS) report GMP20030926000213, https://www.opensource.gov.

10. Anat Weschler, "War of the Gunship Pilots," *Bit'on Heyl Ha'Avir*, 1 December 2000, in FBIS report GMP20001228000099, https://www.opensource.gov.

11. David Eshel, "IDF Gets a 'Wake-Up Call,'" *Jane's Defence Weekly*, 11 October 2000, 36. "TV Reports Israeli Helicopters Bombed Houses in Rafah," Gaza Palestine Satellite Channel Television broadcast, 2 October 2000, FBIS report GMP20001002000296, https://www.opensource.gov.

12. The number of IAF attack sorties is derived from the author's compilation and analysis of multiple reports from Israeli, Palestinian, and international media. Primary sources include The Voice of Palestine radio network (Ramallah), *The Voice of Israel Network B* (Jerusalem), Gaza Palestine Satellite Channel Television, The Voice of Palestine (Bethlehem), Israel Television Channel 1 (Jerusalem), Israel Television Channel 2 (Jerusalem), Israel Defense Forces Radio (Tel Aviv), *Tel Aviv Ha'aretz* (Internet version), *Israel Defense Forces News* (Internet version), *Tel Aviv Yedi'ot Aharonot*, the Palestinian Information Center (Internet version), Gaza WAFA Palestine News Agency (Internet version), Agence France Presse North American Service, *London Quds Press* (Internet version), *Jerusalem Post* (Internet version), MENA Cairo News, Al-Birah Palestine Media Center (Internet version), *Tel Aviv Ynet* (Internet version), *Tel Aviv Ma'ariv* (Internet version), and *Ramallah Al-Hayah al-Jadidah*, as translated by the Foreign Broadcast Information Service, https://www.opensource.gov. Additional information included in the author's analysis of IAF activity was derived from multiple editions of the following English-

language sources: *Jane's Defence Weekly, Jane's Terrorism Watch Report, Jane's Intelligence Review, The Journal of Palestine Studies*, *AirForces Monthly*, *Flight International*, *Israel Insider* (Internet version, http://web.israelinsider.com), *London News Telegraph* (Internet version, http://www.telegraph.co.uk), British Broadcasting Service News (Internet version, http://www.bbc.co.uk), *World Tribune* (Internet version, http://www.worldtribune.com), CNN World (Internet version, http://www.cnn.com), IPR Strategic Business Information Database, *Israel Defense Forces News* (Internet version, http://www1.idf.il), *Yahoo! News* (Internet version, http://news.yahoo.com), *USA Today* (Internet version, http://www.usatoday.com), STRATFOR (Internet service, http://www.stratfor.com), *Guardian Unlimited* (Internet version, http://www.guardian.co.uk), *Washington Post* (Internet version, http://www.washingtonpost.com), and EBSCO Host (Internet service, http://ejournals.ebsco.com).

13. "Operation Iraqi Freedom: Quick Facts," 23 April 2003, http://www.iwar.org.uk/news-archive/iraq/quick-facts.htm.

14. These included such organizations as the militant Tanzim wing of Arafat's Fatah organization and his elite bodyguard unit, Force-17.

15. Again, this characterization of IAF attack sorties is derived from the author's compilation and analysis of multiple reports from Israeli, Palestinian, and international media. Primary sources include The Voice of Palestine radio network (Ramallah), The Voice of Israel Network B (Jerusalem), Gaza Palestine Satellite Channel Television, The Voice of Palestine (Bethlehem), Israel Television Channel 1 (Jerusalem), Israel Television Channel 2 (Jerusalem), Israel Defense Forces Radio (Tel Aviv), *Tel Aviv Ha'aretz* (Internet version), *Israel Defense Forces News* (Internet version), *Tel Aviv Yedi'ot Aharonot*, the Palestinian Information Center (Internet version), Gaza WAFA Palestine News Agency (Internet version), Agence France Presse North American Service, *London Quds Press* (Internet version), *Jerusalem Post* (Internet version), MENA Cairo News, Al-Birah Palestine Media Center (Internet version), *Tel Aviv Ynet* (Internet version), *Tel Aviv Ma'ariv* (Internet version), and *Ramallah Al-Hayah al-Jadidah*, as translated by the Foreign Broadcast Information Service, https://www.opensource.gov. Additional information included in the author's analysis of IAF activity was derived from multiple editions of the following English-language sources: *Jane's Defence Weekly, Jane's Terrorism Watch Report, Jane's Intelligence Review, The Journal of Palestine Studies*, *AirForces Monthly*, *Flight International*, *Israel Insider* (http://web.israelinsider.com), *London News Telegraph* (http://www.telegraph.co.uk), British Broadcasting Service News (http://www.bbc.co.uk), *World Tribune* (http://www.worldtribune.com), CNN World (http://www.cnn.com), IPR Strategic Business Information Database, *Israel Defense Forces News* (http://www1.idf.il), *Yahoo! News* (http://news.yahoo.com), *USA Today* (http://www.usatoday.com), STRATFOR (http://www.stratfor.com), *Guardian Unlimited* (http://www.guardian.co.uk), *Washington Post* (http://www.washingtonpost.com), and EBSCO Host (http://ejournals.ebsco.com).

16. Amos Har'el, "Defending the Force," *Tel Aviv Ha'aretz*, 20 February 2002, in FBIS report GMP2002022000061, https://www.opensource.gov.

17. Ellis Shuman, "Yasser Arafat Grounded after IDF Strikes at Helicopters and Airport," 4 December 2001, http://www.israelinsider.com/channels/security/articles/sec_0153.htm.

18. Ellis Shuman, "Israeli Jets Strike Palestinian Territories for First Time," 20 May 2001, http://www.israelinsider.com/channels/security/articles/sec_0046.htm.

19. David Eshel, "Israel Refines Its Pre-emptive Approach to Counter-terrorism," *Jane's Intelligence Review*, September 2002, 20.

20. Shmu'el Gordon, "Coping, from a Security Perspective, with the Palestinians," *Tel Aviv Ma'arakhot*, 1 December 2001, in FBIS report GMP2002020 6000223, https://www.opensource.gov.

21. Jonathan B. Tucker, "Strategies for Countering Terrorism: Lessons from the Israeli Experience," March 2003, http://www.homelandsecurity.org/journal/articles/tucker-israel.html.

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Appendix A

Reported IAF Attacks in the Occupied Territories, 2000–2005

	Date	Location	Gaza/ West Bank	Platform	Target
1	2-Oct-00	Rafah	Gaza Strip	Helicopter	assessed firing position
2	2-Oct-00	Gaza City	Gaza Strip	Helicopter	PA position
3	2-Oct-00	Netzarim	Gaza Strip	Helicopter	PA position
4	3-Oct-00	Netzarim	Gaza Strip	Helicopter	firing position
5	3-Oct-00	Netzarim	Gaza Strip	Helicopter	Palestinian crowd
6	4-Oct-00	Al-Shuhada	Gaza Strip	Helicopter	firing position
7	5-Oct-00	Al-Shuhada	Gaza Strip	Helicopter	firing position
8	9-Oct-00	Hebron area	West Bank	Helicopter	firing position
9	11-Oct-00	Nablus area	West Bank	Helicopter	Palestinian crowd
10	11-Oct-00	Khan Yunus	Gaza Strip	Helicopter?	possible firing sites
11	12-Oct-00	Gaza Strip	Gaza Strip	Helicopter	Gaza Port
12	12-Oct-00	Gaza City	Gaza Strip	Helicopter	PA admin compound
13	12-Oct-00	Nablus	West Bank	Helicopter	PA police station
14	12-Oct-00	Hebron	West Bank	Helicopter	PA police station
15	12-Oct-00	Ramallah	West Bank	Helicopter	PA police station
16	12-Oct-00	Jericho	West Bank	Helicopter	PA police trng fac
17	12-Oct-00	Ramallah	West Bank	Helicopter	VOP station
18	12-Oct-00	Gaza	West Bank	Helicopter	PA police station
19	19-Oct-00	Jabal Aybal	West Bank	Helicopter	Palestinian gunmen
20	20-Oct-00	Bethlehem	West Bank	Helicopter	firing positions
21	20-Oct-00	Bayt Lahiyah	West Bank	Helicopter	assessed firing position
22	22-Oct-00	Bayt Jala	West Bank	Helicopter	firing position
23	22-Oct-00	Bayt Jala	West Bank	Helicopter	firing position
24	22-Oct-00	Bayt Sahur	West Bank	Helicopter	firing position
25	22-Oct-00	Aida r. c.	West Bank	Helicopter	firing position
26	23-Oct-00	Hebron	West Bank	Helicopter	assessed firing position
27	27-Oct-00	Bayt Jala	West Bank	Helicopter	firing position
28	30-Oct-00	Khan Yunus	Gaza Strip	Helicopter	Force 17 fac
29	30-Oct-00	Al-Birah	West Bank	Helicopter	Fatah bldg
30	30-Oct-00	Nablus	West Bank	Helicopter	Tanzim HQ
31	30-Oct-00	Al-Birah	West Bank	Helicopter	Tanzim HQ

	Date	Location	Gaza/ West Bank	Platform	Target
32	30-Oct-00	Nablus	West Bank	Helicopter	Tanzim HQ
33	1-Nov-00	Bethlehem	West Bank	Helicopter	firing position
34	1-Nov-00	Jericho	West Bank	Helicopter	firing position
35	1-Nov-00	Bayt Jala	West Bank	Helicopter	firing position
36	9-Nov-00	Bayt Sahur	West Bank	Helicopter	sr. Tanzim cmdr.
37	12-Nov-00	Ayidah r.c.	West Bank	Helicopter	building
38	12-Nov-00	Bethlehem	West Bank	Helicopter	building
39	12-Nov-00	Al-Birah	West Bank	Helicopter	building
40	12-Nov-00	Al-Khidr	West Bank	Helicopter	building
41	15-Nov-00	Hebron	West Bank	Helicopter	Fatah office
42	15-Nov-00	Salfit	West Bank	Helicopter	Fatah office
43	15-Nov-00	unknown	West Bank	Helicopter	add'l PA facility
44	15-Nov-00	Tulkarm	West Bank	Helicopter	Fatah/PA police sta.
45	15-Nov-00	Jericho	West Bank	Helicopter	wpns depot
46	20-Nov-00	Gaza City	Gaza Strip	Helicopter	Fatah HQ
47	20-Nov-00	Gaza City	Gaza Strip	Helicopter	Force 17 fac
48	20-Nov-00	Gaza City	Gaza Strip	Helicopter	Gaza PA HQ
49	20-Nov-00	Gaza City	Gaza Strip	Helicopter	PA TV station
50	20-Nov-00	Khan Yunus	Gaza Strip	Helicopter	prev. Sec. Svc. HQ
51	20-Nov-00	Gaza City	Gaza Strip	Helicopter	prev. Sec. Svc. office
52	20-Nov-00	Khan Yunus	Gaza Strip	Helicopter	Tanzim HQ
53	20-Nov-00	Gaza City	Gaza Strip	Helicopter	TV station
54	20-Nov-00	Gaza City	Gaza Strip	Helicopter	VOP station
55	23-Nov-00	Nablus	West Bank	Helicopter	HAMAS activist
56	24-Nov-00	Nablus	West Bank	Helicopter	PA security facility
57	4-Dec-00	Bethlehem	West Bank	Helicopter	firing position
58	13-Feb-01	Gaza Strip	Gaza Strip	Helicopter	senior F-17 cmdr.
59	28-Mar-01	Dayr al-Balah	Gaza Strip	Helicopter	Force 17 facility
60	28-Mar-01	Jabaliya	Gaza Strip	Helicopter	Force 17 facility
61	28-Mar-01	Khan Yunus	Gaza Strip	Helicopter	Force 17 facility
62	28-Mar-01	Rafah	Gaza Strip	Helicopter	Force 17 facility
63	28-Mar-01	Ramallah	West Bank	Helicopter	Force 17 facility
64	2-Apr-01	Rafah	Gaza Strip	Helicopter	IJ activist
65	3-Apr-01	Ansar II r.c.	Gaza Strip	Helicopter	Force 17 complex
66	3-Apr-01	Dayr al-Balah	Gaza Strip	Helicopter	PA targets
67	3-Apr-01	Khan Yunus	Gaza Strip	Helicopter	PA targets
68	3-Apr-01	Rafah	Gaza Strip	Helicopter	PA targets
69	5-Apr-01	Bayt Lahiyah	Gaza Strip	Helicopter	PA Mil Intel

	Date	Location	Gaza/ West Bank	Platform	Target
70	5-Apr-01	Sudaniyah	Gaza Strip	Helicopter	power station
71	6-Apr-01	Gaza Strip	Gaza Strip	Helicopter	PA security posts
72	16-Apr-01	Dayr al-Balah	Gaza Strip	Helicopter	Force 17 HQ
73	16-Apr-01	C. Gaza Strip	Gaza Strip	Helicopter	Force 17 HQ
74	16-Apr-01	C. Gaza Strip	Gaza Strip	Helicopter	Gen Intel Svc HQ
75	16-Apr-01	Gaza Strip	Gaza Strip	Helicopter	PA naval facility
76	28-Apr-01	Gaza Strip	Gaza Strip	Helicopter	F-17 trng facility
77	28-Apr-01	Ansar r.c.	Gaza Strip	Helicopter	F-17 wpns depot
78	28-Apr-01	Jabaliya	Gaza Strip	Helicopter	Force 17 facility
79	28-Apr-01	Gaza Strip	Gaza Strip	Helicopter	PA armored vehicle
80	28-Apr-01	Ramallah	West Bank	Helicopter	Force 17 HQ
81	12-May-01	Jenin	West Bank	Helicopter	Tanzim leader
82	13-May-01	Gaza Strip	Gaza Strip	Helicopter	PA armored cars
83	16-May-01	Jabaliya	Gaza Strip	Helicopter	PPS compound
84	16-May-01	Jenin	West Bank	Helicopter	PA mortar factory
85	18-May-01	Nablus	West Bank	F-16	PA prison
86	18-May-01	Gaza City	Gaza Strip	F-16	PA forces HQ
87	18-May-01	Ramallah	West Bank	F-16	Force 17 facility
88	18-May-01	Ramallah	West Bank	F-16	Force 17 roadblock
89	18-May-01	Nablus	West Bank	F-16	PA forces HQ
90	18-May-01	Tulkarm	West Bank	F-16	PA security fac
91	18-May-01	Ramallah	West Bank	Helicopter	Force 17 fac
92	19-May-01	Jenin	West Bank	Helicopter	Force 17 offices
93	19-May-01	Jenin	West Bank	Helicopter	Gen Intel Svc HQ
94	19-May-01	Tulkarm	West Bank	Helicopter	PA forces HQ
95	19-May-01	Jenin	West Bank	Helicopter	PA forces HQ
96	20-May-01	Gaza City	Gaza Strip	Helicopter	wpns prod fac
97	1-Jul-01	Jenin	West Bank	Helicopter	3 senior IJ mbrs
98	17-Jul-01	Bethlehem	West Bank	Helicopter	HAMAS cmdr +2
99	27-Jul-01	Gaza Strip	Gaza Strip	Helicopter	mortar factory
100	30-Jul-01	Gaza City	Gaza Strip	Helicopter	PA wpns prod fac
101	31-Jul-01	Nablus	West Bank	Helicopter	HAMAS cmdr +5
102	4-Aug-01	Ramallah	West Bank	Helicopter	Force 17 member
103	5-Aug-01	Tulkarm	West Bank	Helicopter	key HAMAS activist
104	5-Aug-01	Rafah	Gaza Strip	Helicopter	PA security HQ
105	8-Aug-01	Nablus	West Bank	Helicopter	F-17 position
106	8-Aug-01	Salfit	West Bank	Helicopter	F-17 security fac
107	8-Aug-01	Salfit	West Bank	Helicopter	PA intel post

	Date	Location	Gaza/ West Bank	Platform	Target
108	9-Aug-01	Ramallah	West Bank	F-16	PA police HQ
109	19-Aug-01	Khan Yunus	Gaza Strip	Helicopter	Force 17 facility
110	22-Aug-01	Gaza City	Gaza Strip	Helicopter	HAMAS leaders
111	23-Aug-01	Nablus	West Bank	Helicopter	senior Fatah mbr
112	26-Aug-01	Dayr al-Balah	Gaza Strip	F-16/F-15	PA MI facility
113	26-Aug-01	Dayr al-Balah	Gaza Strip	F-16/F-15	PA police buildings
114	26-Aug-01	Gaza City	Gaza Strip	F-16/F-15	PA police HQ
115	26-Aug-01	Salfit	West Bank	F-16/F-15	PA police HQ
116	26-Aug-01	Tulkarm	West Bank	Helicopter	PA police HQ
117	27-Aug-01	Ramallah	West Bank	Helicopter	PFLP Sec Gen
118	3-Sep-01	Dura	West Bank	Helicopter	PA Gen Intel Svc fac
119	5-Sep-01	Gaza City	Gaza Strip	Helicopter	Force 17 HQ
120	5-Sep-01	Gaza City	Gaza Strip	Helicopter	PA police station
121	6-Sep-01	Tulkarm	West Bank	Helicopter	senior AMB mbr
122	8-Sep-01	Ramallah	West Bank	Helicopter	Tanzim HQ
123	9-Sep-01	Jericho	West Bank	Helicopter	PA security facility
124	10-Sep-01	Tammun	West Bank	Helicopter	PA security facility
125	12-Sep-01	Jenin	West Bank	F-16	Force 17 offices
126	12-Sep-01	Jenin	West Bank	F-16	Force 17 offices
127	12-Sep-01	Tammun	West Bank	F-16	PA security facility
128	12-Sep-01	Arrabah	West Bank	F-16	PA security facility
129	15-Sep-01	Al-Zaytun, G.C.	Gaza Strip	Helicopter	PA Civ Def HQ
130	15-Sep-01	Tal al-Hawa	Gaza Strip	Helicopter	PA MI HQ
131	15-Sep-01	Al-Sudaniyah	Gaza Strip	Helicopter	PA Naval HQ
132	15-Sep-01	Rafah	Gaza Strip	Helicopter	PA police HQ
133	15-Sep-01	Al-Nusayrat	Gaza Strip	Helicopter	PA police HQ
134	15-Sep-01	Bayt Lahiyah	Gaza Strip	Helicopter	PA Pub Sec Dir fac
135	5-Oct-01	Hebron	West Bank	F-16	unknown
136	5-Oct-01	Abu Sunayah	West Bank	Helicopter	PA security fac
137	5-Oct-01	Hebron	West Bank	Helicopter	unknown
138	5-Oct-01	Hebron	West Bank	Helicopter	unknown
139	15-Oct-01	Nablus	West Bank	Helicopter	HAMAS activist
140	18-Oct-01	Bethlehem	West Bank	Helicopter	Fatah-Tanzim cmdr
141	20-Oct-01	Bethlehem	West Bank	Helicopter	Palestinian position
142	31-Oct-01	Hebron	West Bank	Helicopter	HAMAS activist
143	1-Nov-01	Tulkarm	West Bank	Helicopter	suicide bomb team
144	4-Nov-01	Jabalyah	Gaza Strip	Helicopter	workshop 1

	Date	Location	Gaza/ West Bank	Platform	Target
145	4-Nov-01	Jabalyah	Gaza Strip	Helicopter	workshop 2
146	4-Nov-01	Jabalyah	Gaza Strip	Helicopter	workshop 3
147	23-Nov-01	Nablus	West Bank	Helicopter	HAMAS leader
148	25-Nov-01	Dayr al-Balah	Gaza Strip	Helicopter	Fatah / civ def fac
149	25-Nov-01	Al-Sudaniyah	Gaza Strip	Helicopter	naval police post
150	25-Nov-01	Khan Yunus	Gaza Strip	Helicopter	PA MI facility
151	3-Dec-01	Jenin	West Bank	F-16	PA governate bldg
152	3-Dec-01	Jenin	West Bank	F-16	PA prison
153	3-Dec-01	Jenin	West Bank	F-16	Police HQ
154	3-Dec-01	Gaza IAP	Gaza Strip	Helicopter	Arafat's helos
155	3-Dec-01	Gaza IAP	Gaza Strip	Helicopter	fuel depot
156	3-Dec-01	Gaza IAP	Gaza Strip	Helicopter	hangars
157	3-Dec-01	Gaza City	Gaza Strip	Helicopter	PSF barracks
158	4-Dec-01	Gaza City	Gaza Strip	F-16	Force 17 offices
159	4-Dec-01	Khan Yunus	Gaza Strip	F-16	PA Nat Sec Svc HQ
160	4-Dec-01	Gaza City	Gaza Strip	F-16	PA Prev Sec Svc HQ
161	4-Dec-01	Jabalyah	Gaza Strip	Helicopter	F-17 trng fac
162	4-Dec-01	Gaza City	Gaza Strip	Helicopter	Force 17 HQ
163	4-Dec-01	Tulkarm	West Bank	Helicopter	Force 17 HQ
164	4-Dec-01	Ramallah	West Bank	Helicopter	PA Intel Min bldg
165	4-Dec-01	Salfit	West Bank	Helicopter	PA Intel Svc fac
166	7-Dec-01	South Gaza	Gaza Strip	F-16	PA training fac
167	7-Dec-01	Gaza City	Gaza Strip	F-16	PA police HQ
168	8-Dec-01	Rafah	Gaza Strip	Helicopter	Force 17 bldg
169	8-Dec-01	Rafah	Gaza Strip	Helicopter	PA mil intel HQ
170	8-Dec-01	Rafah	Gaza Strip	Helicopter	PA police HQ
171	10-Dec-01	Hebron	West Bank	Helicopter	senior IJ leader
172	11-Dec-01	N. Gaza Strip	Gaza Strip	Helicopter	electrical grid
173	11-Dec-01	N. Gaza Strip	Gaza Strip	Helicopter	Force 17 HQ
174	12-Dec-01	Dayr al-Balah	Gaza Strip	F-16	PA naval police
175	12-Dec-01	Gaza IAP	Gaza Strip	F-16	radar
176	12-Dec-01	Ramallah	West Bank	F-16	Arafat's helipad
177	12-Dec-01	Al-Birah	West Bank	F-16	PA facilities
178	12-Dec-01	Jenin	West Bank	F-16	PA facilities
179	12-Dec-01	Qalqilyah	West Bank	F-16	PA facilities
180	12-Dec-01	Tulkarm	West Bank	F-16	PA facilities
181	12-Dec-01	Khan Yunus	Gaza Strip	Helicopter	Force 17 bldg

	Date	Location	Gaza/ West Bank	Platform	Target
182	12-Dec-01	Khan Yunus	Gaza Strip	Helicopter	Force 17 bldg
183	12-Dec-01	Gaza	Gaza Strip	Helicopter	PA police fac
184	12-Dec-01	Nablus	West Bank	F-16	wpns dev fac
185	13-Dec-01	Gaza City	Gaza Strip	F-16	Force 17 HQ
186	13-Dec-01	Bayt Lahiyah	Gaza Strip	F-16	PA naval police fac
187	13-Dec-01	Gaza Strip	Gaza Strip	F-16	PA police fac
188	13-Dec-01	Gaza City	Gaza Strip	F-16	PSF/Fatah offices
189	13-Dec-01	Ramallah	West Bank	F-16	PA headquarters
190	13-Dec-01	Ramallah	West Bank	F-16	PSF/Fatah offices
191	13-Dec-01	Jenin	West Bank	F-16	PSF/Fatah offices
192	13-Dec-01	Jenin	West Bank	Helicopter	Fatah office
193	13-Dec-01	Jenin	West Bank	Helicopter	PA Interior Ministry
194	13-Dec-01	Ramallah	West Bank	Helicopter	PA police station
195	14-Dec-01	Gaza City	Gaza Strip	F-16	Force 17 HQ
196	14-Dec-01	Gaza City	Gaza Strip	F-16	PA security facility
197	16-Dec-01	Jabalyah	Gaza Strip	Helicopter	PA police station
198	25-Dec-01	Jordanian border	Jordan	Helicopter	Palestinian gunmen
199	26-Dec-01	Jenin	West Bank	Helicopter	Palestinian gunmen
200	18-Jan-02	Tulkarm	West Bank	F-16	PA admin compound
201	18-Jan-02	Tulkarm	West Bank	F-16	PA Interior Ministry
202	18-Jan-02	Tulkarm	West Bank	F-16	PA security offices
203	24-Jan-02	Khan Yunus	Gaza Strip	Helicopter	Local HAMAS cmdr
204	25-Jan-02	Gaza	Gaza Strip	F-16	F-17 armored vehs
205	25-Jan-02	Tulkarm	West Bank	F-16	PA security fac
206	4-Feb-02	Rafah-Khan Y rd	Gaza Strip	Helicopter	5 DFLP mbrs
207	4-Feb-02	Jabalyah	Gaza Strip	Helicopter	3 wpns prod facs
208	5-Feb-02	Bethlehem	West Bank	F-16	Force 17 HQ
209	7-Feb-02	Nablus	West Bank	F-16	PA ammo depot
210	7-Feb-02	Nablus	West Bank	F-16	PA prison
211	7-Feb-02	Nablus	West Bank	Helicopter	PA Nat'l Sec fac
212	10-Feb-02	Gaza City	Gaza Strip	F-16	Force 17 facilities
213	10-Feb-02	Gaza City	Gaza Strip	Helicopter	mortar factory
214	10-Feb-02	Jabalyah	Gaza Strip	Helicopter	mortar factory
215	11-Feb-02	Gaza City	Gaza Strip	F-16	PA general intel ofcs
216	11-Feb-02	Gaza City	Gaza Strip	Helicopter	Force 17 facilities
217	11-Feb-02	Gaza City	Gaza Strip	Helicopter	PA MI facility
218	15-Feb-02	Jabalyah	Gaza Strip	F-16	PA Nat'l Sec Svc HQ
219	15-Feb-02	Jabalyah	Gaza Strip	F-16	PA Nat'l Sec Svc HQ

	Date	Location	Gaza/ West Bank	Platform	Target
220	15-Feb-02	Bayt Lahiyah	Gaza Strip	F-16	PA security fac
221	17-Feb-02	Nablus	West Bank	F-16	One of Arafat's ofcs
222	17-Feb-02	Nablus	West Bank	F-16	PA HQ
223	17-Feb-02	Ramallah	West Bank	F-16	PA security facility
224	17-Feb-02	Nablus	West Bank	Helicopter	One of Arafat's ofcs
225	17-Feb-02	Nablus	West Bank	Helicopter	PA police cmd post
226	18-Feb-02	Rafah	Gaza Strip	F-16	Force 17 HQ
227	18-Feb-02	Rafah	Gaza Strip	F-16	PA MI HQ
228	18-Feb-02	Ramallah	West Bank	F-16	PA special police HQ
229	19-Feb-02	Jabalyah	Gaza Strip	Helicopter	HAMAS info office
230	19-Feb-02	Rafah	Gaza Strip	F-16	PA security facility
231	19-Feb-02	Ramallah	West Bank	F-16	PA security facility
232	20-Feb-02	Gaza City	Gaza Strip	F-16	PA police HQ
233	20-Feb-02	Nablus	West Bank	F-16	PA police checkpoint
234	20-Feb-02	Jenin	West Bank	F-16	PA security fac
235	20-Feb-02	Gaza City	Gaza Strip	Helicopter	PA security fac
236	20-Feb-02	Gaza City	Gaza Strip	Helicopter	presidential office
237	20-Feb-02	Ramallah	West Bank	Helicopter	PA intel compound
238	20-Feb-02	Nablus	West Bank	Helicopter	PA police checkpoint
239	20-Feb-02	Jer-Ram road	West Bank	Helicopter	PA security fac
240	20-Feb-02	Al-Birah	West Bank	Helicopter	PA security fac
241	20-Feb-02	Ramallah	West Bank	Helicopter	presidential office
242	21-Feb-02	Rafah	Gaza Strip	F-16	F-17/PA MI fac
243	21-Feb-02	Gaza City	Gaza Strip	F-16	PA naval police fac
244	21-Feb-02	Khan Yunus	Gaza Strip	F-16	PA security fac
245	21-Feb-02	Nablus	Gaza Strip	Helicopter	multiple PA sec fac
246	21-Feb-02	Ramallah	West Bank	Helicopter	Arafat's helipad
247	21-Feb-02	Al-Birah	West Bank	Helicopter	Force 17 bldg
248	21-Feb-02	Ramallah	West Bank	Helicopter	presidential office
249	3-Mar-02	Al-Birah	West Bank	F-16	PA security fac
250	3-Mar-02	Bethlehem	West Bank	Helicopter	PA gov't bldg
251	3-Mar-02	Al-Birah	West Bank	Helicopter	PA security fac
252	3-Mar-02	Bethlehem	West Bank	Helicopter	wpns workshop
253	4-Mar-02	Bethlehem	West Bank	F-16	PA Gen Intel Svc HQ
254	4-Mar-02	Bethlehem	West Bank	F-16	PA gov't compound
255	4-Mar-02	Bethlehem	West Bank	F-16	PA gov't compound
256	4-Mar-02	Ramallah	West Bank	Helicopter	PA MI facility
257	5-Mar-02	Ramallah	West Bank	Helicopter	3 AMB members

	Date	Location	Gaza/ West Bank	Platform	Target
258	5-Mar-02	Gaza City	Gaza Strip	F-16	PA police fac
259	5-Mar-02	Tulkarm	West Bank	F-16	PA police fac
260	5-Mar-02	Gaza City	Gaza Strip	Helicopter	Force 17 facilities
261	5-Mar-02	Khan Yunus	Gaza Strip	Helicopter	PA Nat'l Intel HQ
262	5-Mar-02	Ramallah	West Bank	Helicopter	PA police fac
263	5-Mar-02	Nablus	West Bank	Helicopter	PA police fac
264	6-Mar-02	Gaza Strip	Gaza Strip	Helicopter	rocket launch site
265	6-Mar-02	Gaza City	Gaza Strip	F-16	Gaza Public Sec HQ
266	6-Mar-02	Hebron area	West Bank	F-16	PA police/F-17 fac
267	6-Mar-02	Bethlehem	West Bank	F-16	PA/Fatah offices
268	6-Mar-02	Rafah	Gaza Strip	Helicopter	PA sec svc HQ
269	6-Mar-02	Gaza City	Gaza Strip	Helicopter	PA security fac
270	6-Mar-02	Gaza City	Gaza Strip	Helicopter	PA security fac
271	6-Mar-02	Hebron area	West Bank	Helicopter	PA police/F-17 fac
272	6-Mar-02	Ramallah	West Bank	Helicopter	PA sec svc HQ
273	6-Mar-02	Bethlehem	West Bank	Helicopter	PA/Fatah offices
274	6-Mar-02	Halhul	West Bank	Helicopter	Tanzim-Fatah ofcs
275	7-Mar-02	Gaza City	Gaza Strip	F-16	PA police fac
276	7-Mar-02	Bethlehem	West Bank	F-16	PA security facility
277	7-Mar-02	Jabalyah	Gaza Strip	Helicopter	PA police station
278	7-Mar-02	Bayt Hanun	Gaza Strip	Helicopter	PA police station
279	8-Mar-02	Nablus	West Bank	F-16	PA gov't bldg
280	8-Mar-02	Khan Yunus	Gaza Strip	Helicopter	PA Nat'l Sec Svc HQ
281	8-Mar-02	Dayr al-Balah	Gaza Strip	Helicopter	PA security facility
282	8-Mar-02	Yattah	West Bank	Helicopter	PA Gen Intel Svc HQ
283	8-Mar-02	Halhul	West Bank	Helicopter	PA police fac
284	9-Mar-02	Ramallah	West Bank	Helicopter	senior AMB mbr
285	9-Mar-02	Nablus	West Bank	F-16	Arafat's local HQ
286	9-Mar-02	Gaza City	Gaza Strip	Helicopter	Force 17 facilities
287	9-Mar-02	Gaza City	Gaza Strip	Helicopter	PA police station
288	9-Mar-02	Gaza City	Gaza Strip	Helicopter	PA Pres Sec Forces
289	10-Mar-02	Gaza City	Gaza Strip	F-16	PA police HQ
290	10-Mar-02	Al-Sudaniyah	Gaza Strip	F-16	PA police HQ
291	10-Mar-02	Gaza City	Gaza Strip	Helicopter	Arafat's offices
292	10-Mar-02	Rafah	Gaza Strip	Helicopter	PA intel offices
293	10-Mar-02	Gaza City	Gaza Strip	Helicopter	PA orgs' HQ
294	10-Mar-02	Jabalyah	Gaza Strip	Helicopter	PA police station
295	11-Mar-02	Qalqilyah	West Bank	Helicopter	Force 17 offices

	Date	Location	Gaza/ West Bank	Platform	Target
296	11-Mar-02	Al-Sudaniyah	Gaza Strip	F-16	PA police station
297	11-Mar-02	Al-Zaytun, G.C.	Gaza Strip	Helicopter	Wpns factory
298	14-Mar-02	Anabta	West Bank	Helicopter	2 IJ activists
299	14-Mar-02	Anabta	West Bank	Helicopter	Key AMB activist +1
300	2-Apr-02	Bethlehem	West Bank	Helicopter	armed Palestinians
301	2-Apr-02	Ramallah	West Bank	Helicopter	PA prev Sec Svc HQ
302	2-Apr-02	Baytuniya	West Bank	Helicopter	PA sec svcs WB HQ
303	3-Apr-02	Nablus	West Bank	Helicopter	"various targets"
304	5-Apr-02	Jenin	West Bank	Helicopter	"various targets"
305	5-Apr-02	Hebron	West Bank	Helicopter	IJ activist
306	8-Apr-02	Ramallah	West Bank	Helicopter	armed Palestinians
307	9-Apr-02	Jenin	West Bank	Helicopter	"various targets"
308	9-Apr-02	Nablus	West Bank	F-16	Qassem-2 factory
309	10-Apr-02	Jenin	West Bank	Helicopter	2 activists
310	23-Apr-02	Hebron	West Bank	Helicopter	2 senior Tanzim mbrs
311	20-May-02	Tulkarm	West Bank	Helicopter	unknown
312	8-Jun-02	Khan Yunus	Gaza Strip	Helicopter	unknown
313	19-Jun-02	Gaza City	Gaza Strip	F-16	wpns prod fac
314	19-Jun-02	Jabalyah	Gaza Strip	F-16	wpns prod fac
315	19-Jun-02	Khan Yunus	Gaza Strip	F-16	wpns prod fac
316	19-Jun-02	Khan Yunus	Gaza Strip	Helicopter	wpns prod fac
317	19-Jun-02	Gaza Strip	Gaza Strip	Helicopter	wpns prod fac
318	24-Jun-02	Rafah	Gaza Strip	Helicopter	2 HAMAS mil. ldrs
319	26-Jun-02	Hebron	West Bank	Helicopter	"various targets"
320	28-Jun-02	Nablus	West Bank	Helicopter	"various targets"
321	5-Jul-02	Dura valleys	West Bank	Helicopter	armed Palestinians
322	7-Jul-02	Nablus hills	West Bank	Helicopter	armed Palestinians
323	14-Jul-02	Khan Yunus	Gaza Strip	F-16	HAMAS explosvs lab
324	17-Jul-02	An-Nusayrat	Gaza Strip	F-16	HAMAS wpn prod fac
325	22-Jul-02	Gaza City	Gaza Strip	F-16	Saleh Shehadah
326	24-Jul-02	Nablus	West Bank	Helicopter	3 HAMAS members
327	5-Aug-02	Gaza City	Gaza Strip	Helicopter	weapons factory
328	6-Aug-02	Jenin	West Bank	Helicopter	2 AMB members
329	21-Aug-02	Jenin	West Bank	Helicopter	suicide bomb team
330	30-Aug-02	Al-Burayj	Gaza Strip	Helicopter	HAMAS activist
331	31-Aug-02	Tubas	West Bank	Helicopter	2 AMB mbrs (1 KIA)
332	6-Sep-02	Khan Yunus	Gaza Strip	Helicopter	bomb-making factory
333	20-Sep-02	Ramallah	West Bank	Helicopter	presidential compnd

	Date	Location	Gaza/ West Bank	Platform	Target
334	24-Sep-02	Gaza City	Gaza Strip	Helicopter	unknown
335	26-Sep-02	Gaza City	Gaza Strip	Helicopter	HAMAS mil cmdr Deif
336	5-Oct-02	Al-Zahra	Gaza Strip	Helicopter	"various targets"
337	7-Oct-02	Khan Yunus	Gaza Strip	Helicopter	Palestinian crowd
338	4-Nov-02	Nablus	West Bank	Helicopter	HAMAS member
339	11-Nov-02	Gaza Strip	Gaza Strip	Helicopter	mortar factory
340	13-Nov-02	Gaza City	Gaza Strip	Helicopter	same tgt as 11 Nov
341	16-Nov-02	Gaza City	Gaza Strip	Helicopter	weapons factory
342	17-Nov-02	SW Gaza Strip	Gaza Strip	Helicopter	prev Sec Svc trng fac
343	17-Nov-02	Khan Yunus	Gaza Strip	Helicopter	weapons factory
344	26-Nov-02	Jenin	West Bank	Helicopter	HAMAS & AMB ldrs
345	27-Nov-02	N. Gaza Strip	Gaza Strip	Helicopter	mortar position
346	27-Nov-02	Khan Yunus	Gaza Strip	Helicopter	unknown (PA: school)
347	28-Nov-02	Yaqinton/Qatif	Gaza Strip	Helicopter	armed Palestinians
348	30-Nov-02	Bayt Lahiyah	Gaza Strip	Helicopter	unknown
349	1-Dec-02	Gaza Strip	Gaza Strip	Helicopter	IJ activists
350	4-Dec-02	Gaza City	Gaza Strip	Helicopter	senior IJ bomb mkr
351	7-Dec-02	Gaza Strip	Gaza Strip	Helicopter	5 HAMAS members
352	2-Jan-03	Al-Burayj	Gaza Strip	Helicopter	firing pos. (houses)
353	2-Jan-03	Al-Nusayrat	Gaza Strip	Helicopter	firing pos. (houses)
354	5-Jan-03	Asqulah, G.C.	Gaza Strip	Helicopter	mortar factory
355	12-Jan-03	Rafah-Khan Yrd	Gaza Strip	Helicopter	2 HAMAS members
356	14-Jan-03	Jenin	West Bank	Helicopter	"residential bldg"
357	23-Jan-03	Gaza City	Gaza Strip	Helicopter	weapons factory
358	24-Jan-03	Bayt Hanun	Gaza Strip	Helicopter	firing positions
359	27-Jan-03	Gaza City	Gaza Strip	Helicopter	senior HAMAS mbr
360	6-Feb-03	Gaza City	Gaza Strip	Helicopter	open field
361	16-Feb-03	Gaza	Gaza Strip	Helicopter	6 HAMAS activists
362	19-Feb-03	Gaza City	Gaza Strip	Helicopter	Palestinians in field
363	27-Feb-03	Bayt Hanun	Gaza Strip	Helicopter	unknown
364	3-Mar-03	Al-Burayj	Gaza Strip	Helicopter	unknown
365	6-Mar-03	Jabalyah	Gaza Strip	Helicopter	unknown
366	6-Mar-03	Tal al-Za'tar	Gaza Strip	Helicopter	unknown
367	6-Mar-03	Bayt Lahiyah	Gaza Strip	Helicopter	unknown
368	7-Mar-03	Bayt Hanun	Gaza Strip	Helicopter	unknown
369	8-Mar-03	Gaza City	Gaza Strip	Helicopter	sr HAMAS police off
370	13-Mar-03	Hebron Hills	West Bank	Helicopter	Israeli guards (frat)
371	27-Mar-03	Bayt Hanun	Gaza Strip	Helicopter	PA security post

	Date	Location	Gaza/ West Bank	Platform	Target
372	2-Apr-03	Tulkarm	Gaza Strip	Helicopter	unknown
373	3-Apr-03	Al-Salam/Rafah	Gaza Strip	Helicopter	unknown
374	3-Apr-03	Al-Barazil/Rafah	Gaza Strip	Helicopter	unknown
375	8-Apr-03	Gaza City	Gaza Strip	Helicopter	sr HAMAS mil cmdr
376	10-Apr-03	Gaza City	Gaza Strip	Helicopter	IJ military ldr
377	11-Apr-03	Khan Yunus	Gaza Strip	Helicopter	"house"
378	11-Apr-03	Khan Yunus	Gaza Strip	Helicopter	"cemetery"
379	29-Apr-03	Khan Yunus	Gaza Strip	Helicopter	PFLP-GC Gaza cmdr
380	8-May-03	Gaza City	Gaza Strip	Helicopter	sr HAMAS activist
381	10-May-03	central Gaza	Gaza Strip	Helicopter	HAMAS wpns depot
382	10-May-03	Gaza City	Gaza Strip	Helicopter	HAMAS wpns depot
383	13-May-03	Khan Yunus	Gaza Strip	Helicopter	unknown
384	10-Jun-03	Jabalyah	Gaza Strip	Helicopter	Q rocket crew
385	10-Jun-03	Gaza City	Gaza Strip	Helicopter	Al-Rantisi attempt
386	11-Jun-03	Al-Shuja'iyah	Gaza Strip	Helicopter	2 sr HAMAS mbrs
387	12-Jun-03	Gaza	Gaza Strip	Helicopter	2 HAMAS activists
388	12-Jun-03	Gaza City	Gaza Strip	Helicopter	2 sr HAMAS mbrs
389	13-Jun-03	Gaza Strip	Gaza Strip	Helicopter	HAMAS Qassem team
390	13-Jun-03	Gaza City	Gaza Strip	Helicopter	HAMAS member
391	13-Jun-03	Gaza Strip	Gaza Strip	Helicopter	HAMAS wpn depot
392	25-Jun-03	Khan Yunus	Gaza Strip	Helicopter	HAMAS Qassem team
393	8-Aug-03	Askar r.c.	West Bank	Helicopter	trapped HAMAS mbrs
394	21-Aug-03	Gaza City	Gaza Strip	Helicopter	HAMAS ldr/spokesman
395	24-Aug-03	Gaza City	Gaza Strip	Helicopter	2 sr HAMAS + 2
396	26-Aug-03	Jabalyah	Gaza Strip	Helicopter	HAMAS activist
397	28-Aug-03	Gaza City	Gaza Strip	Helicopter	HAMAS activist
398	30-Aug-03	Al-Burayj	Gaza Strip	Helicopter	2 sr HAMAS mbrs
399	1-Sep-03	Gaza City	Gaza Strip	Helicopter	HAMAS activist
400	6-Sep-03	Khan Yunus	Gaza Strip	F-16	Yasin & HAMAS ldrs
401	7-Sep-03	Khan Yunus	Gaza Strip	Helicopter	HAMAS wpns depot
402	10-Sep-03	Gaza City	Gaza Strip	F-16	HAMAS spokesman
403	18-Sep-03	An-Nusayrat	Gaza Strip	Helicopter	HAMAS mbr's house
404	25-Sep-03	Al-Burayj	Gaza Strip	Helicopter	HAMAS mbr's house
405	4-Oct-03	Gaza City	Gaza Strip	Helicopter	HAMAS mbr's house
406	4-Oct-03	central Gaza	Gaza Strip	Helicopter	IJ mbr in open field
407	4-Oct-03	Al-Burayj	Gaza Strip	Helicopter	IJ member's house
408	5-Oct-03	Gaza City	Gaza Strip	Helicopter	HAMAS /IJ house
409	5-Oct-03	Ain Saheb, SY	Syria	F-16	IJ training r.c.

	Date	Location	Gaza/ West Bank	Platform	Target
410	5-Oct-03	Gaza City	Gaza Strip	Helicopter	IJ wpns depot
411	5-Oct-03	Al-Burayj	Gaza Strip	Helicopter	IJ wpns depot
412	10-Oct-03	Rafah	Gaza Strip	Helicopter	Unknown
413	20-Oct-03	Gaza City	Gaza Strip	Helicopter	2 HAMAS militants
414	20-Oct-03	Gaza City	Gaza Strip	F-16	HAMAS wpns factory
415	20-Oct-03	Gaza City	Gaza Strip	Helicopter	HAMAS wpns depot
416	21-Oct-03	Gaza Strip	Gaza Strip	Helicopter	HAMAS operatives
417	21-Oct-03	An-Nusayrat	Gaza Strip	Helicopter	infiltration team
418	21-Oct-03	Gaza City	Gaza Strip	F-16	HAMAS wpns factory
419	21-Oct-03	Gaza City	Gaza Strip	Helicopter	HAMAS wpns depot
420	22-Oct-03	An-Nusayrat	Gaza Strip	Helicopter	Infiltration team
421	22-Oct-03	Gaza City	Gaza Strip	Helicopter	wpns transporters
422	22-Oct-03	Gaza City	Gaza Strip	F-16	HAMAS rocket depot
423	22-Oct-03	Gaza City	Gaza Strip	Helicopter	HAMAS weapons fac
424	25-Dec-03	Gaza City	Gaza Strip	Helicopter	IJ commander
425	30-Dec-03	Gaza City	Gaza Strip	Helicopter	sr HAMAS mbr
426	7-Feb-04	Gaza City	Gaza Strip	Helicopter	IJ military cmdr
427	28-Feb-04	Gaza Strip	Gaza Strip	Helicopter	2 senior IJ mbrs +1
428	3-Mar-04	Gaza Strip	Gaza Strip	Helicopter	3 sr HAMAS mbrs
429	7-Mar-04	Al-Burayj	Gaza Strip	Helicopter	armed Palestinians
430	15-Mar-04	Gaza City	Gaza Strip	Helicopter	HAMAS wpns factory
431	15-Mar-04	Gaza City	Gaza Strip	Helicopter	HAMAS wpns factory
432	16-Mar-04	Gaza City	Gaza Strip	Helicopter	2 IJ activists
433	16-Mar-04	Rafah	Gaza Strip	Helicopter	2 PRC mbrs, 1 sr
434	17-Mar-04	Rafah	Gaza Strip	Helicopter	explosives squad
435	17-Mar-04	Rafah	Gaza Strip	Helicopter	explosives squad
436	17-Mar-04	Rafah	Gaza Strip	Helicopter	explosives squad
437	22-Mar-04	Gaza Strip	Gaza Strip	Helicopter	Ahmed Yasin + 3
438	25-Mar-04	Khan Yunus	Gaza Strip	Helicopter	armed Palestinians
439	15-Apr-04	Rafah	Gaza Strip	Helicopter	armed Palestinians
440	17-Apr-04	Gaza City	Gaza Strip	Helicopter	A.A. al-Rantisi + 2
441	20-Apr-04	Bayt Lahiyah	Gaza Strip	Helicopter	explosives squad
442	2-May-04	Nablus	West Bank	Helicopter	AMB Balatah cmdr +2
443	2-May-04	Gaza City	Gaza Strip	Helicopter	HAMAS radio station
444	2-May-04	Gaza Strip	Gaza Strip	Helicopter	Fatah radio station
445	2-May-04	Gaza Strip	Gaza Strip	Helicopter	newspaper offices
446	4-May-04	Khan Yunus	Gaza Strip	Helicopter	armed Palestinians
447	11-May-04	Al-Shaja'iyah	Gaza Strip	Helicopter	U/I activists

	Date	Location	Gaza/ West Bank	Platform	Target
448	12-May-04	Al-Zaytun, G.C.	Gaza Strip	Helicopter	house w/gunmen
449	13-May-04	Rafah	Gaza Strip	Helicopter	armed Palestinians
450	13-May-04	Rafah	Gaza Strip	Helicopter	armed Palestinians
451	14-May-04	Gaza City	Gaza Strip	Helicopter	HAMAS prop. center
452	14-May-04	Gaza City	Gaza Strip	Helicopter	IJ leader's HQ
453	14-May-04	Gaza City	Gaza Strip	Helicopter	IJ research center
454	14-May-04	Rafah	Gaza Strip	Helicopter	IJ explosives lab
455	16-May-04	Asqulah, G.C.	Gaza Strip	Helicopter	DFLP offices
456	16-May-04	Al-Shuja'iyah	Gaza Strip	Helicopter	Fatah cultural center
457	16-May-04	Asqulah, G.C.	Gaza Strip	Helicopter	Fatah offices
458	16-May-04	Al-Nasr	Gaza Strip	Helicopter	NSP-affiliated paper
459	17-May-04	Rafah	Gaza Strip	Helicopter	explosives squad
460	18-May-04	Rafah	Gaza Strip	Helicopter	Palestinian crowd
461	18-May-04	Rafah	Gaza Strip	Helicopter	explosives squad
462	19-May-04	Rafah	Gaza Strip	Helicopter	explosives squad
463	29-May-04	Al-Zaytun, G.C.	Gaza Strip	Helicopter	U/I activist
464	30-May-04	Al-Zaytun, G.C.	Gaza Strip	Helicopter	HAMAS mil cmdr + 1
465	8-Jun-04	Gaza City	Gaza Strip	Helicopter	HAMAS workshop
466	8-Jun-04	Gaza City	Gaza Strip	Helicopter	HAMAS workshop
467	11-Jun-04	Gush Katif	Gaza Strip	Helicopter	infiltration team
468	14-Jun-04	Balatah r.c.	West Bank	Helicopter	AMB Balatah cmdr
469	18-Jun-04	Gaza Strip	Gaza Strip	Helicopter	weapons factory
470	18-Jun-04	Gaza Strip	Gaza Strip	Helicopter	weapons factory
471	19-Jun-04	Al-Maghazi	Gaza Strip	Helicopter	HAMAS wpns factory
472	28-Jun-04	Gaza City	Gaza Strip	Helicopter	HAMAS C2/prop fac
473	28-Jun-04	Gaza City	Gaza Strip	Helicopter	HAMAS wpns factory
474	1-Jul-04	Bayt Hanun	Gaza Strip	Helicopter	explosives squad
475	2-Jul-04	Tal al-Za'tar	Gaza Strip	Helicopter	unknown
476	5-Jul-04	Gaza City	Gaza Strip	Helicopter	HAMAS workshop
477	5-Jul-04	Gaza City	Gaza Strip	Helicopter	HAMAS workshop
478	6-Jul-04	Bayt Hanun	Gaza Strip	Helicopter	unknown
479	6-Jul-04	Nablus	West Bank	Helicopter	PFLP Nablus Cdr
480	7-Jul-04	Gaza City	Gaza Strip	UCAV	3 HAMAS militants
481	8-Jul-04	Tal al-Za'tar	Gaza Strip	Helicopter	unknown
482	8-Jul-04	Bayt Hanun	Gaza Strip	Helicopter	unknown
483	8-Jul-04	B. Hanun fields	Gaza Strip	Helicopter	unknown
484	14-Jul-04	Asqulah, G.C.	Gaza Strip	Helicopter	HAMAS rocket fact'y

	Date	Location	Gaza/ West Bank	Platform	Target
485	19-Jul-04	Gaza City	Gaza Strip	Helicopter	Pop Res Comm cmdr
486	20-Jul-04	Gaza City	Gaza Strip	Helicopter	house of above TK
487	22-Jul-04	Gaza City	Gaza Strip	Helicopter	IJ regional cmdr +2
488	22-Jul-04	Khan Yunus	Gaza Strip	Helicopter	HAMAS wpns factory
489	25-Jul-04	Gaza City	Gaza Strip	Helicopter	senior IJ militant
490	25-Jul-04	Gaza City	Gaza Strip	Helicopter	HAMAS workshop
491	25-Jul-04	Gaza City	Gaza Strip	Helicopter	restrike on above
492	28-Jul-04	Gaza coast	Gaza Strip	Helicopter	Palestinian crowd
493	29-Jul-04	Rafah	Gaza Strip	Helicopter	Abu-Rish cmdr & dep
494	30-Jul-04	Al-Zaytun, G. C.	Gaza Strip	Helicopter	HAMAS wpns factory
495	3-Aug-04	Rafah	Gaza Strip	Helicopter	U/I - civilians hit
496	4-Aug-04	Jabalyah	Gaza Strip	Helicopter	Qassem launcher
497	8-Aug-04	Rafah	Gaza Strip	Helicopter	U/I - electricity out
498	11-Aug-04	Khan Yunus	Gaza Strip	Helicopter	armed Palestinians
499	15-Aug-04	Rafah	Gaza Strip	Helicopter	U/I
500	16-Aug-04	NE Gaza Strip	Gaza Strip	Helicopter	rocket launcher/team
501	17-Aug-04	Gaza Strip	Gaza Strip	UCAV	Sr HAMAS mbr (3 K)
502	18-Aug-04	Al-Zaytun, G. C.	Gaza Strip	Helicopter	HAMAS explsv fact'y
503	18-Aug-04	Asqulah, G.C.	Gaza Strip	Helicopter	HAMAS wpns factory
504	19-Aug-04	Bayt Hanun	Gaza Strip	Helicopter	Qassem launch area
505	26-Aug-04	Tal al-Za'tar	Gaza Strip	Helicopter	unknown
506	26-Aug-04	Al-Sikkah	Gaza Strip	Helicopter	unknown
507	26-Aug-04	Nablus	West Bank	Helicopter	unknown
508	26-Aug-04	Rafah	Gaza Strip	Helicopter	IJ activist
509	27-Aug-04	Tal al-Za'tar	Gaza Strip	Helicopter	unknown
510	27-Aug-04	Al-Sikkah	Gaza Strip	Helicopter	unknown
511	27-Aug-04	Al-Kaff	Gaza Strip	Helicopter	unknown
512	27-Aug-04	Bayt Hanun	Gaza Strip	Helicopter	unknown
513	30-Aug-04	Jenin	West Bank	Helicopter	AMB cmdr
514	2-Sep-04	Khan Yunus	Gaza Strip	Helicopter	Explosives squad
515	3-Sep-04	Al-Burayj	Gaza Strip	Helicopter	HAMAS workshop
516	7-Sep-04	Gaza City	Gaza Strip	Helicopter	HAMAS trng fac
517	9-Sep-04	Jabalyah	Gaza Strip	Helicopter	armed Palestinians
518	10-Sep-04	Jabalyah	Gaza Strip	Helicopter	Qassem launch area
519	13-Sep-04	Jenin	West Bank	UCAV	3 AMB activists
520	20-Sep-04	Gaza City	Gaza Strip	Helicopter	HAMAS mil cmdr
521	20-Sep-04	Tal al-Hawa	Gaza Strip	Helicopter	HAMAS rocket team
522	23-Sep-04	Khan Yunus	Gaza Strip	Helicopter	unknown

	Date	Location	Gaza/ West Bank	Platform	Target
523	25-Sep-04	Khan Yunus	Gaza Strip	Helicopter	unknown
524	26-Sep-04	Khan Yunus	Gaza Strip	Helicopter	HAMAS workshop
525	27-Sep-04	Khan Yunus	Gaza Strip	Helicopter	PRC cmdr (1 KIA)
526	29-Sep-04	Jabalyah	Gaza Strip	Helicopter	Qassem rocket team
527	29-Sep-04	Jabalyah	Gaza Strip	Helicopter	Qassem rocket team
528	30-Sep-04	Jabalyah	Gaza Strip	F-16	unknown
529	30-Sep-04	Gaza Strip	Gaza Strip	Helicopter	Antitank rocket team
530	30-Sep-04	Gaza City	Gaza Strip	Helicopter	Elanazar Cmte ofcs
531	1-Oct-04	Gaza Strip	Gaza Strip	Helicopter	Qassem rocket team
532	1-Oct-04	Jabalyah	Gaza Strip	UCAV	U/I militant
533	1-Oct-04	Gaza City	Gaza Strip	Helicopter	weapons factory
534	2-Oct-04	Jabalyah	Gaza Strip	Helicopter	Explosives squad
535	2-Oct-04	Gaza City	Gaza Strip	Helicopter	2 HAMAS activists
536	4-Oct-04	Jabalyah	Gaza Strip	Helicopter	explosives squad
537	4-Oct-04	Al-Shaja'iyah	Gaza Strip	Helicopter	2 HAMAS activists
538	5-Oct-04	Jabalyah	Gaza Strip	UCAV	armed Palestinians
539	5-Oct-04	Al-Shati	Gaza Strip	Helicopter	IJ Gaza cmdr + 1 mbr
540	6-Oct-04	Jabalyah	Gaza Strip	Helicopter	HAMAS wpns factory
541	7-Oct-04	Jabalyah	Gaza Strip	Helicopter	Qassam rocket team
542	9-Oct-04	Khan Yunus	Gaza Strip	Helicopter	Armed Palestinians
543	10-Oct-04	Jabalyah	Gaza Strip	Helicopter	explosives squad
544	11-Oct-04	Bethlehem	West Bank	Helicopter	Palestinian gunmen
545	11-Oct-04	Rafah	Gaza Strip	Helicopter	Sr IJ leader
546	14-Oct-04	Jabalyah	Gaza Strip	Helicopter	armed Palestinians
547	15-Oct-04	Jabalyah	Gaza Strip	Helicopter	armed Palestinians
548	22-Oct-04	Gaza City	Gaza Strip	Helicopter	sr HAMAS ldr + 1
549	22-Oct-04	Jabalyah	Gaza Strip	Helicopter	Pop Res Cmte fac
550	24-Oct-04	Khan Yunus	Gaza Strip	Helicopter	armed Palestinians
551	24-Oct-04	N. Gaza Strip	Gaza Strip	Helicopter	unknown
552	26-Oct-04	Khan Yunus	Gaza Strip	Helicopter	explosives squad
553	2-Nov-04	N. Gaza Strip	Gaza Strip	Helicopter	mortar position?
554	6-Nov-04	Qatif Bloc	Gaza Strip	Helicopter	explosives squad
555	1-Dec-04	Bayt Hanun	Gaza Strip	Helicopter	Qassem rocket team
556	7-Dec-04	Al-Shaja'iyah	Gaza Strip	UCAV	IJ activist
557	7-Dec-04	E. Gaza Strip	Gaza Strip	UCAV	IJ activist
558	9-Dec-04	S. Gaza Strip	Gaza Strip	UCAV	sr Pop Res Cmte mbr
559	9-Dec-04	Bayt Lahiyah	Gaza Strip	UCAV	weapons facility
560	13-Dec-04	Gaza City	Gaza Strip	Helicopter	weapons facility

	Date	Location	Gaza/West Bank	Platform	Target
561	16-Dec-04	Rafah	Gaza Strip	Unknown	mortar shell depot
562	17-Dec-04	Rafah	Gaza Strip	Helicopter	bldg w/ tunnel entr
563	18-Dec-04	Rafah	Gaza Strip	F-16	bldg w/ tunnel entr
564	19-Dec-04	N. Gaza Strip	Gaza Strip	UCAV	HAMAS weapons fac
565	19-Dec-04	Gaza City	Gaza Strip	UCAV	HAMAS weapons fac
566	22-Dec-04	Khan Yunus	Gaza Strip	Helicopter	antitank rocket team
567	28-Dec-04	Khan Yunus	Gaza Strip	UCAV	mortar/rocket team
568	30-Dec-04	Khan Yunus	Gaza Strip	UCAV	explosives squad
569	2-Jan-05	N. Gaza Strip	Gaza Strip	Helicopter	Qassam rocket team
570	13-Jan-05	central Gaza	Gaza Strip	Helicopter	suspected car bomb
571	16-Jan-05	Bayt Lahiyah	Gaza Strip	Unk	Qassam rocket team
572	16-Jan-05	Bayt Lahiyah	Gaza Strip	Helicopter	rocket /mortar prod fac

BREAKOUTS

TYPE AIRCRAFT:	Fixed-Wing	Helo	UCAV	
	99	458	13 (2 poss)	
LOCATION:	West Bank	Gaza Strip	Jordan	
	187	383	1	
TYPE OF ATTACK:	Preemption	Warning/Retaliation	Ground Support	Weapons-related sites
	38	237	110	74
YEAR:	2000	2001	2002	2004
	57	142	152	143
ATTACKS/MONTH:	2000	2001	2002	2004
	19	12	13	12

Evolution of IAF Mission Priorities, 2000–2005
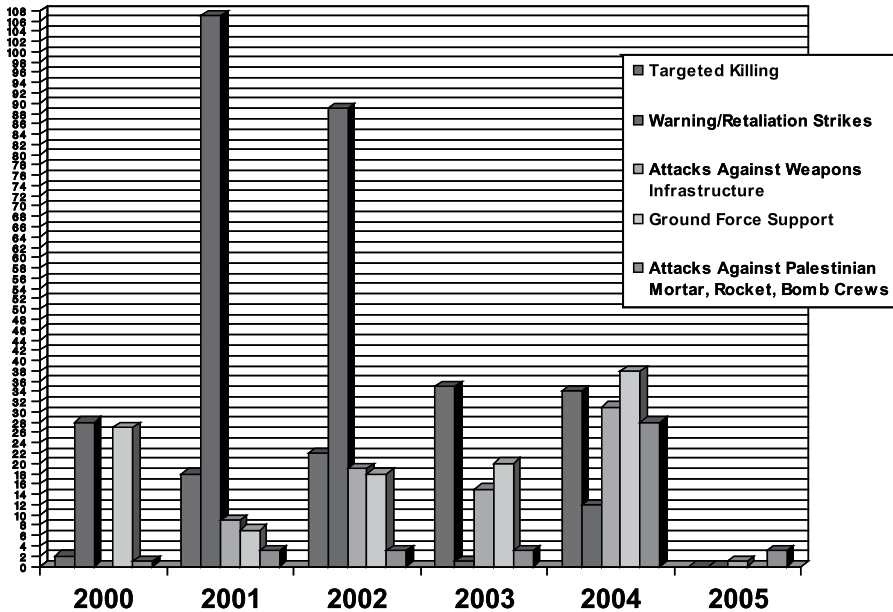
Sources: Derived from the author's compilation and analysis of multiple reports from Israeli, Palestinian, and international media. Primary sources include The Voice of Palestine radio network (Ramallah), The Voice of Israel Network B (Jerusalem), Gaza Palestine Satellite Channel Television, The Voice of Palestine (Bethlehem), Israel Television Channel 1 (Jerusalem), Israel Television Channel 2 (Jerusalem), Israel Defense Forces Radio (Tel Aviv), *Tel Aviv Ha'aretz* (Internet version), *Israel Defense Forces News* (Internet version), *Tel Aviv Yedi'ot Aharonot*, the Palestinian Information Center (Internet version), Gaza WAFA Palestine News Agency (Internet version), Agence France Presse North American Service, *London Quds Press* (Internet version), *Jerusalem Post* (Internet version), MENA Cairo News, Al-Birah Palestine Media Center (Internet version), *Tel Aviv Ynet* (Internet version), *Tel Aviv Ma'ariv* (Internet version), and *Ramallah Al-Hayah al-Jadidah*, as translated by the Foreign Broadcast Information Service (https://www.opensource.gov; user account required). Additional information included in the author's analysis of IAF activity was derived from multiple editions of the following English-language sources: *Jane's Defence Weekly, Jane's Terrorism Watch Report, Jane's Intelligence Review, The Journal of Palestine Studies, AirForces Monthly, Flight International, Israel Insider* (http://web.israelinsider.com), *London News Telegraph* (http://www.telegraph .co.uk), British Broadcasting Service News (http://www.bbc.co.uk), *World Tribune* (http://www.worldtribune .com), CNN World (http://www.cnn.com), IPR Strategic Business Information Database, *Israel Defense Forces News* (http://www1.idf.il), *Yahoo! News* (http://news.yahoo.com), *USA Today* (http://www.usatoday.com), STRATFOR (http://www.stratfor.com), *Guardian Unlimited* (http://www.guardian.co.uk), *Washington Post* (http://www. washingtonpost.com), and EBSCO Host (http://ejournals.ebsco.com).

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Author: Matthew M. Hurley, Lieutenant Colonel, USAF

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